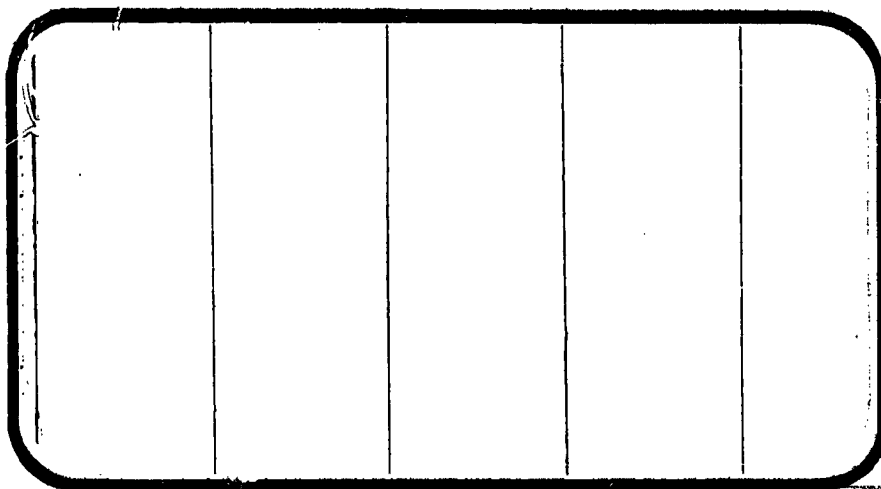




# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION



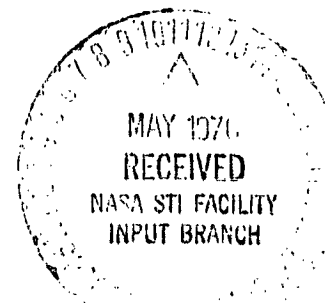
(NASA-CR-144599) RESULTS OF HEAT TRANSFER  
TESTS OF A 0.0175-SCALE SPACE SHUTTLE  
VEHICLE 5 MODEL (60-OTS) IN THE NASA-AMES  
RESEARCH CENTER 3.5-FCOI HYPERSONIC WIND  
TUNNEL (TEST IH48) (Chrysler Corp.) 970 p

N76-22273  
HC 23.75

Unclas  
G3/18 27653

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER  
CORPORATION

OR  
OF

March, 1976

DMS-DR-2248  
NASA CR-144,599

RESULTS OF HEAT TRANSFER TESTS OF A  
0.0175-SCALE SPACE SHUTTLE VEHICLE 5 MODEL(60-OTS)  
IN THE NASA-AMES RESEARCH CENTER  
3.5-FOOT HYPERSONIC WIND TUNNEL (TEST IH48)

by

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Prepared under NASA Contract Number NAS9-13247

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WIND TUNNEL TEST SPECIFICS:

Test Number: ARC 3.5-211  
NASA Series Number: IH48  
Model Number: 60-OTS  
Test Dates: April 21 through May 8, 1975  
Occupancy Hours: 256

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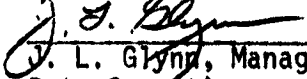
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RESULTS OF HEAT TRANSFER TESTS OF A .  
0.0175-SCALE SPACE SHUTTLE VEHICLE 5 MODEL (60-OTS)  
IN THE NASA-AMES RESEARCH CENTER  
3.5-FOOT HYPERSONIC WIND TUNNEL (TEST IH48)

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ABSTRACT

Presented in this report are heat transfer data for a .0175-scale model of the Rockwell International Space Shuttle Vehicle 5. The primary purpose of these tests was to obtain aerodynamic interference heating data on the external tank in the tank alone, second-, and first-stage configurations. Data were also obtained on the Orbiter and solid rocket boosters.

The tests were conducted at the NASA-Ames Research Center 3.5-Foot Hypersonic Wind Tunnel. Nominal Mach Nos. of 5.2 and 5.3 at nominal free-stream unit Reynolds numbers of 1.5 and 5.0 million per foot, respectively, were investigated.

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## SCHEDULE OF COEFFICIENTS PLOTTED:

(A)	H/HREF	vs. X/L	(B)	H/HREF	vs. X/L
	HI/HU	vs. X/L			

## INTRODUCTION

Wind tunnel tests of the 60-OTS 0.0175-scale thin-skin thermocouple model of the Rockwell International Space Shuttle Vehicle 5 were conducted in the NASA-Ames Research Center 3.5-ft hypersonic wind tunnel. The tests were conducted from April 21 through May 8, 1975.

The primary purpose of these tests was to obtain aerodynamic interference heating data on the external tank. Data were obtained for the integrated vehicle (OTS), Orbiter plus tank (OT), and tank alone configurations at Mach numbers of 5.2 and 5.3 for Reynolds numbers of  $1.5 \times 10^6/\text{ft}$  and  $5.0 \times 10^6/\text{ft}$ , respectively.

Boundary-layer transition devices were used for the majority of the tests to induce a turbulent boundary layer on all configurations tested.

The integrated vehicle was tested through an angle of attack range of  $-5^\circ$  to  $+10^\circ$  and sideslip angles of  $0^\circ$  and  $-5^\circ$  (nose right). The external tank (in OTS configuration) was tested with the "nipple" nose and all protuberances (lines, conduits, attach struts, etc.). One data set was obtained with the external tank interstage (intertank) unit added.

Orbiter plus tank (OT) configuration was tested through an angle of attack range of  $-5^\circ$  to  $+5^\circ$  and sideslip angles of  $0^\circ$  and  $-5^\circ$ . The external tank (OT configuration) was tested with nipple nose and protuberances.

The external tank alone configuration was tested with no protuberances (clean) with both the nipple nose (ET-N) and the ogive nose (ET-O). The angle of attack ranged from  $-10^\circ$  to  $+10^\circ$ . Sideslip angle was not



varied and remained at 0°. The ET-N was tested with no trips whereas the ET-0 was tested both with and without trips.

# NOMENCLATURE

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
b		thickness of model skin
B		span length
C		specific heat of model skin material or OMS crease
c		chord length
$c_p$		specific heat of air stream (perfect gas value)
CHAN	CHAN	recording-system channel
$H_{aw}$	HAW	adiabatic wall enthalpy
$H_t$	HT	free-stream total enthalpy
$H_{w_i}$	HW	enthalpy based on model wall temperature for given T/C location at initial time
h	H	heat-transfer coefficient at model wall for given T/C location
$h_s$ or $h_{Ref}$	HREF	stagnation-point heat-transfer coefficient for reference sphere
$h/h_s$ or $h/h_{ref}$	H/HREF	ratio of model heat-transfer coefficient to heat- transfer coefficient of reference sphere for $H_{aw}/H_t =$ X.XXX
$h_i/h_u$	HI/HU	interference-to-undisturbed heat-transfer coefficient ratio
IML		inner mold line
L	Length	model reference length
$M_\infty$	MACH	free-stream Mach number
$P_t$	PT	free-stream total pressure

# NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$\dot{q}_i$	Q	heat-transfer rate at model wall for given T/C location at initial time
$\dot{q}_s$	QS or QREF	stagnation-point heat-transfer rate for reference sphere at initial time
$\dot{q}$	QDOT	heat-transfer rate at model wall for given T/C location
$R_s$	RS	reference sphere radius at model scale equivalent to 0.305 m (1 ft) for full-scale vehicle
$Re_\infty/ft$	RN/L	free-stream Reynolds number per foot
$Re_\infty L$	REL	free-stream Reynolds number based on model reference length, L
	S	assumed chordwise location (for Clusters B and C) - see Figure 2
ST	STN NO	Stanton number based on free-stream flow conditions and the model heat-transfer coefficient for $H_{aw}/H_t = X.XXX$
T		temperature
$T_t$	TT	free-stream total temperature
$T_{wi}$	TW	model wall temperature for given T/C location at initial time
T/C	TC NO	thermocouple
t		time
$t_i$	TIME	initial time (before model insertion into flow) extrapolated from $f(T_w)$ vs time
u, V		velocity

# NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$W$		density of model skin material
$X$		axial distance measured from nose
$X_0$		Orbiter longitudinal stations
$X_S$		SRB longitudinal stations
$X_T$		tank longitudinal stations
$x/c$	$X/C$	chordwise location, fraction of local chord
$x/L$	$X/L$	longitudinal location, fraction of body length
$Y$		spanwise distance from centerline
$Y_0$		Orbiter lateral stations
$Y_S$		SRB lateral stations
$Y_T$		tank lateral stations
	$2Y/B$	spanwise location, fraction of semi-span
$Z$		water plane distance
$Z_0$		Orbiter vertical stations
$Z_S$		SRB vertical stations
$Z_T$		tank vertical stations
	$Z/B_V$	spanwise location on vertical tail, fraction of exposed span
$\theta$	THETA	tank radial position measured clockwise looking forward, 0 degrees at bottom centerline
$\alpha$	ALPHA	angle of attack, degrees

# NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
$\beta$	BETA	angle of sideslip, degrees
$\mu$		viscosity of air
$\rho$	RHO	density of air
$\phi$	PHI	Orbiter radial position measured clockwise looking forward. 0 degrees at bottom centerline
$\psi$	PSI	SRB radial position measured clockwise looking forward. 0 degrees at bottom centerline
$p_{\infty}$	PINF	free-stream pressure
$V_{\infty}$	VINF	free-stream velocity
$T_{\infty}$	TINF	free-stream temperature

## Subscripts

aw	adiabatic wall
i	initial value before model insertion into tunnel flow
O	Orbiter
PG	perfect gas (calorically and thermally perfect gas)
s	reference sphere
S	SRB
t	free-stream total condition
T	tank
V	vertical tail
w	wall
$\infty$	free-stream

## CONFIGURATIONS INVESTIGATED

The 60 OTS is a 0.0175-scale, thin-skin thermocouple model of the Rockwell International Space Shuttle Vehicle 5 (VL72-000002C; see Fig. 2 (a)). The model is constructed from 17-4 PH stainless steel. The nominal skin thickness is 0.030 inches at the thermocouple instrumentation areas. The external tank and solid rocket boosters are complete with conduits, plumbing lines, attach hardware, etc. Figures 2(b) and 2(c) define the protuberance locations.

The external tank may be tested with or without protuberances (including a stainless steel wrap around interstage unit). The ET may also be tested with either a nipple nose or ogive nose.

The models were tested with and without boundary layer transition devices. The "trips" consist of 0.020- or 0.015-inch diameter stainless steel balls spot welded to .005-inch thick by .25-inch wide stainless steel strips. The balls are separated by 4 ball diameters (centerline to centerline). The trips are form fitted to the Orbiter, ET, and SRB at constant X stations. Trip ball sizes and locations for each configuration tested are outlined in Table VIII.

The configurations tested are described below:

<u>Collation Sheets</u>	<u>Plots</u>	<u>Description</u>
OTS	OTS/NIPPLE/P/TRIP	Integrated vehicle with nipple-nose tank, tank and SRB plumbing lines (P), and trip rings on Orbiter, tank, and SRB's; B <sub>62</sub> C <sub>12</sub> E <sub>52</sub> F <sub>10</sub> M <sub>16</sub> R <sub>18</sub> W <sub>116</sub> V <sub>8</sub> S <sub>22</sub> T <sub>30</sub>

# CONFIGURATIONS INVESTIGATED (Continued)

<u>Collation Sheets</u>	<u>Plots</u>	<u>Description</u>
OTS (O + S)	OTS/NIPPLE/P/TRIP (O+S)	Integrated vehicle with nipple nose tank, tank and SRB plumbing lines (P), and trip rings on Orbiter and SRB (none on tank); B62 C12 E52 F10 M16 R18 W116 V8 S22 T30
OTS-I	OTS/NIPPLE/P/TRIP - INTS	Integrated vehicle with nipple nose tank, tank and SRB plumbing lines, and trip rings plus tank interstage unit, B62 C12 E52 F10 M16 R18 W116 V8 S22 T30
OT	OT/NIPPLE/P/TRIP	Orbiter with nipple nose tank, tank plumbing, and trips on Orbiter and tank, B62 C12 E52 F10 M16 R18 W116 V8 T30
ET-N no trips	ET/NIPPLE/CLEAN	external tank alone, nipple nose, no plumbing (CLEAN); T30
ET-O no trips	ET/OGIVE/CLEAN	external tank alone, ogive nose, no plumbing (CLEAN); T28
ET-O trips	ET/OGIVE/CLEAN/TRIPS	external tank alone, ogive nose no plumbing (CLEAN) but with trip ring; T28

Detailed dimensional data for the above configurations and components are given in Table III. Photographs of the configurations are given in Figure 3.

## CONFIGURATIONS INVESTIGATED (Concluded)

Dataset identifiers for this test indicate the type of data found within each dataset as follows:

First character:

R =  $h/h_{ref}$  data

B =  $h_i/h_u$  data

Second & Third character (NB) - unique for test IH-48 (NASA-Ames Test 211)

Fourth character:

A = Orbiter fuselage

B = Wing lower surface

C = SRB

D = RCS nose (SRB)

E = RCS skirt (SRB)

F = External tank

Fifth and Sixth character - identifies the group of runs for that particular dataset (see Table II)

Example: RNBF01

$h/h_{ref}$  data, test IH-48, external tank dataset 01 (runs 6,8-13,7)



## INSTRUMENTATION

The 60 OTS model is instrumented with 830 30-gage, iron-constantan thermocouples (T/C's). For these tests, however, only 600 T/C's were monitored; 75 on the Orbiter lower surface, 375 on the external tank, and 150 on the SRB. All thermocouples are spot welded to 0.030 in. nominal skin thickness areas.

The instrumentation locating system is defined on Figure 1b. Tables V through VII list the T/C Nos., locations, and skin thicknesses for the Orbiter, tank, and SRB respectively. Figures 2d through 2g illustrate the T/C locations. Table IX lists the hookup schedules for the test.

## TEST FACILITY DESCRIPTION

The NASA-Ames 3.5-Foot Hypersonic Wind Tunnel is a closed-circuit, blowdown-type tunnel capable of operating at nominal Mach numbers of 5, 7, and 10 at pressures to 1800 psia and temperatures to 3400°R for run times to four minutes. The major components of the facility include a gas storage system where the test gas is stored at 3000 psi, a storage heater filled with aluminum-oxide pebbles capable of heating the test gas to 3400°R, axisymmetric contoured nozzles with exit diameters of 42 inches for generating the desired Mach number, and a 900,000 ft<sup>3</sup> vacuum storage system which operates to pressures of 0.3 psia. The test section itself is an open-jet type enclosed within a chamber approximately 12-feet in diameter and 40-feet in length, arranged transversely to the flow direction.

A model support system is provided that can pitch models through an angle-of-attack range of -20 to +20 degrees, in a vertical plane, about a fixed point of rotation on the tunnel centerline. This rotation point is adjustable from 1 to 5 feet from the nozzle exit plane. The model normally is out of the test stream (strut centerline 37-inches from tunnel centerline) until the tunnel test conditions are established after which it is inserted. Insertion time is adjustable to as little as 1/2 second and models may be inserted at any strut angle.

A high-speed, analog-to-digital data acquisition system is used to record test data on magnetic tape. The present system is equipped to measure and record the outputs from 80 transducers in addition to 20 channels of tunnel parameters.

## TEST PROCEDURES

The test facility data acquisition system was limited to recording 75 thermocouples per run. The OTS configuration required eight runs to obtain a complete dataset with five runs for ET data, two runs for SRB data, and one run for Orbiter lower surface data. The OT configuration required six runs since the SRB's were not present.

Cannon plugs with 15 thermocouples (T/C's) per plug were utilized. A five-plug junction (connector) box was constructed to mate the model plugs to the facility's 150°F reference box terminal posts. Most model changes were simple plug changes between runs. Re-wiring of some plugs were required to allow acquisition of tank data in two runs per data set.

During a typical run, T/C's for each of the 5 operational plugs were checked to insure that the model was isothermal and that the T/C's were functioning properly. The wind tunnel was started with the model out of the air stream. After the desired tunnel conditions were obtained, the injection sequence was started. The model was automatically inserted into the air stream and reached tunnel centerline for approximately 1 second and was then retracted automatically. Data were recorded from the instant injection began until the end of retraction. Shadowgraphs were manually taken when the model was on tunnel centerline. (See Fig. 3(i) and 3 (j)).

# DATA REDUCTION

All test data were reduced at the NASA/Ames Research Center using the data-reduction techniques outlined below. The thermocouple data were reduced using the one-dimensional, thin-wall equation:

$$\dot{q} = W C b \frac{dT_w}{dt} = h (H_{aw} - H_w) \equiv h H_t \left( \frac{H_{aw}}{H_t} - \frac{H_w}{H_t} \right) \quad (1)$$

which neglects heat-conduction losses.

Assuming that  $W$  and  $h$  are constant and

$$C = C_0 + C_1 T_w + C_2 T_w^2 \text{ for } T_w \text{ ranges experienced in the test,} \quad (2)$$

the integration of equation (1) for  $t = t_1$  to  $t$  and  $T_w = T_{w1}$

to  $T_w$  yields the linear equation:

$$f(T_w) = - \ln \left( \frac{T'_{aw} - T_w}{T'_{aw} - T_{w1}} \right) - \left[ \frac{C_1}{C'_{aw}} + \frac{C_2}{C'_{aw}} \left( T'_{aw} + \frac{T_w + T_{w1}}{2} \right) \right] (T_w - T_{w1}) \\ = \frac{hc_p}{WC'_{aw} b} (t - t_1) \quad (3)$$

where it is defined that:

$$T'_{aw} \equiv \frac{H_{aw}}{c_p} \equiv \frac{H_{aw}}{H_t} \frac{H_t}{c_p} \geq (T_{aw})_{PG} \quad (4)$$

$$C'_{aw} \equiv C_0 + C_1 T'_{aw} + C_2 T'^2_{aw} \quad (5)$$

\* specific heat at adiabatic wall temperature

The form of Eq (3) is  $f(T_w) = mt + a$  where  $m$  is the slope and  $a$  is the intercept for a straight line if heat-conduction errors are negligible. Thus, deviations from a straight line can indicate heat-conduction effects.

The slope,  $m$ , of  $f(T_w)$  vs  $t$  from Eq (3) is computed by a least-squares, straight-line fit over a finite time interval (approx 1 sec) beginning when the model reaches uniform tunnel flow. The value of the heat-transfer coefficient,  $h$ , is then determined from:

$$h = \frac{WC'_{aw} b}{c_p} m \quad (6)$$

Using this value of  $h$ , the heat-transfer rate is evaluated at the initial time,  $t_1$ , when the model is isothermal at the initial wall enthalpy,

$$\dot{q} = \dot{q}_1 = h (H_{aw} - H_{w_1}) \equiv h H_t \left( \frac{H_{aw}}{H_t} - \frac{H_{w_1}}{H_t} \right) \quad (7)$$

where  $H_{aw}/H_t$  is the same value used to evaluate  $h$ . The resultant value of  $\dot{q}$  is independent of the value of  $H_{aw}/H_t$  used for both the  $h$  and  $\dot{q}$  evaluations.

The reference sphere heating is also evaluated at the initial wall enthalpy by the method of Fay and Riddell (ref. 2):

$$\dot{q}_s = h_s (H_t - H_{w_1}) \equiv h_s H_t \left( 1.0 - \frac{H_{w_1}}{H_t} \right) \quad (8)$$

The model-to-sphere ratio of heat-transfer coefficients is then determined from Eqs. (7) and (8) as

$$\frac{h}{h_s} = \frac{\dot{q}_1}{\dot{q}_s} \left[ \frac{1.0 - H_{w_1}/H_t}{H_{aw}/H_t - H_{w_1}/H_t} \right] \quad (9)$$

where  $\dot{q}_1$  is constant for all values of  $H_{aw}/H_t$ .

To determine  $h/h_g$  for various values of  $H_{aw}/H_t$ , the particular value of  $H_{aw}/H_t$  is substituted into Eq. (9).

The Stanton number is defined as

$$St \equiv \frac{h}{\rho u} = \frac{\dot{q}_1}{\rho u (H_{aw} - H_{w_1})} \quad (10)$$

where for free-stream conditions,  $\rho u = \rho_\infty V_\infty$ .

The calculations of the model heating, reference sphere heating, and Reynolds number included the corrections of NACA report 1135 (ref. 3) for calorically imperfect, thermally perfect air. Keyes' equation for viscosity (see ref. 4) was also used for the sphere heating and Reynolds number computations:

$$\mu = \frac{0.0232 \times 10^{-6} T^{0.5}}{1 + \frac{220}{T} \times 10^{-9/T}} \quad (11)$$

where the units for  $T$  and  $\mu$  are  $^{\circ}R$  and  $lb\text{-}sec/ft^2$ , respectively.

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TABLE I

[illegible]



TABLE II.

[illegible]

TABLE II. (Concluded)

[illegible]

TABLE III  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B<sub>62</sub>

GENERAL DESCRIPTION : Configuration 140C orbiter fuselage, MCR 200-R4.  
Similar to 140A/B fuselage except aft body revised and improved  
midbody-wing-boot fairing, X<sub>o</sub> = 940 to X<sub>o</sub> = 1040.

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-000140C, -000202C, -000205A  
VL70-000200B, -000203

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (IML: FWD Sta X <sub>o</sub> =238), In.	1290.3	22.58
Length (OML: Fwd Sta X <sub>o</sub> =235), In.	1293.3	22.63
Max Width (At X <sub>o</sub> = 1528.3), In.	264.0	4.62
Max Depth (At X <sub>o</sub> = 1464), In.	250.0	4.38
Fineness Ratio	4.899	4.899
Area - Ft <sup>2</sup>		
Max. Cross-Sectional	340.885	0.104
Planform		
Wetted		
Base		

TABLE III(Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : CANOPY - C<sub>12</sub>  
 GENERAL DESCRIPTION : Configuration 140C orbiter canopy. Vehicle  
cabin No. 31 updated to MCR 200-R4. Used with fuselage 142.  
 \_\_\_\_\_  
 MODEL SCALE: 0.0175  
 DRAWING NUMBER : VL70-000140C, -000202B, -000204

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ( $X_o = 434.543$ to $578$ ), In.	<u>143.357</u>	<u>2.508</u>
Max Width (At $X_o = 513.127$ ), In.	<u>152.412</u>	<u>2.667</u>
Max Depth ( $Z_o = 501$ to $449.39$ ), In.	<u>51.61</u>	<u>0.903</u>
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE 111(Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT: ELEVON - E<sub>52</sub>

GENERAL DESCRIPTION: Elevon for configuration 140C. Hingeline at  $X_o = 1387$ ,  
elevon split line  $X_w = 312.5, 6.0''$ , beveled edges, and centerbodies.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000140C, -006089, -006092

DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>210.0</u>	<u>0.064</u>
Span (equivalent) - In.	<u>349.2</u>	<u>6.111</u>
Inb'd equivalent chord- In.	<u>118.0</u>	<u>2.065</u>
Outb'd equivalent chord	<u>55.19</u>	<u>0.966</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.0</u>	<u>0.0</u>
Tailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline (Product of area & $\bar{c}$ )	<u>0.0</u>	<u>0.0</u>
Area Moment (Normal to hingeline) Ft <sup>3</sup>	<u>1587.25</u>	<u>0.008</u>
Mean Aerodynamic Chord, In.	<u>90.7</u>	<u>1.587</u>
Hingeline dihedral (origin at $Z_o = 261.3509$ ), deg.	<u>5.229</u>	<u>5.229</u>

TABLE III(Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY FLAP - F<sub>10</sub>  
GENERAL DESCRIPTION : Configuration 140C body flap. Hingeline located  
at X<sub>0</sub> = 1532, Z<sub>0</sub> = 287.  
  
MODEL SCALE: 0.0175  
  
DRAWING NUMBER : VL70-000140C, -355114

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length (X <sub>0</sub> = 1525.5 to X <sub>0</sub> = 1613), In.	<u>87.50</u>	<u>1.531</u>
Max Width (At L. E., X <sub>0</sub> = 1525.5), In.	<u>256.00</u>	<u>4.480</u>
Max Depth (X <sub>0</sub> = 1532), In.	<u>19.798</u>	<u>0.346</u>
Fineness Ratio	<u></u>	<u></u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional (At H. L.)	<u>35.196</u>	<u>0.011</u>
Planform	<u>135.00</u>	<u>0.041</u>
Wetted	<u></u>	<u></u>
Base (X <sub>0</sub> = 1613)	<u>4.89</u>	<u>0.0015</u>

# TABLE ITI (Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT OMS POD - M<sub>16</sub>

GENERAL DESCRIPTION : Configuration 140C orbiter OMS Pod - short pod.

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-008401, -008410

### DIMENSIONS :

### FULL SCALE

### MODEL SCALE

Length (OMS Fwd Sta  $X_o = 1310.5$ ), In. 258.50

4.524

Max Width (At  $X_o = 1511$ ), In.

136.8

2.394

Max Depth (At  $X_o = 1511$ ), In.

74.70

1.307

Fineness Ratio

2.484

2.484

Area = Ft<sup>2</sup>

Max. Cross-Sectional

58.864

0.018

Planform

Wetted

Base

TABLE III(Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT: RUDDER - R<sub>18</sub>

GENERAL DESCRIPTION: The rudder is a secondary movable airfoil at the trailing edge of the vertical fin that imparts yaw forces. This dimensional data was calculated from the OML master dimensions.

MODEL SCALE: 0.0175DRAWING NUMBER: Vehicle 5 Configuration MCR 200, Rev. 7

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft <sup>2</sup>	<u>97.84</u>	<u>0.030</u>
Span (equivalent) - In.	<u>198.614</u>	<u>3.476</u>
Inb'd equivalent chord - In.	<u>91.07</u>	<u>1.699</u>
Outb'd equivalent chord - In.	<u>50.80</u>	<u>0.889</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.833</u>	<u>34.833</u>
Tailing Edge	<u>26.249</u>	<u>26.249</u>
Hingeline (Product of Area & $\bar{c}$ ),	<u>34.833</u>	<u>34.833</u>
Area Moment (Normal to hingeline) Ft <sup>3</sup>	<u>593.889</u>	<u>0.032</u>
Mean Aerodynamic Chord, In.	<u>72.840</u>	<u>1.275</u>



TABLE III(Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT: VERTICAL - V<sub>8</sub>GENERAL DESCRIPTION: Configuration 140C orbiter vertical tail (identical to configuration 140A/B vertical tail).MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000140C, -000146B

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA..		
Area (Theo) - Ft <sup>2</sup>		
Planform	<u>413.253</u>	<u>0.127</u>
Span (Theo) - In.	<u>315.72</u>	<u>5.525</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
0.25 Element Line	<u>41.13</u>	<u>41.13</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>4.699</u>
Tip (Theo) WP	<u>108.47</u>	<u>1.898</u>
MAC	<u>199.81</u>	<u>3.497</u>
Fus. Sta. of .25 MAC	<u>1463.35</u>	<u>25.609</u>
W.P. of .25 MAC	<u>635.52</u>	<u>11.122</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.92</u>	<u>14.92</u>
Leading Edge Radius	<u>2.00</u>	<u>2.00</u>
Void Area	<u>13.17</u>	<u>0.0040</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE III (Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT: WING-W<sub>116</sub>

GENERAL DESCRIPTION: Configuration 5

NOTE: Identical to W<sub>114</sub> except airfoil thickness. Dihedral angle is along trailing edge of wing. Geometric twist = 0.

MODEL SCALE: 0.0175

TEST NO.

DWG. NO. VL70-000140A, -000200

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area (Theo.)  $\text{Ft}^2$

Planform

2690.0

0.824

Span (Theo) In.

936.68

16.392

Aspect Ratio

2.265

2.265

Rate of Taper

1.177

1.177

Taper Ratio

0.200

0.200

Dihedral Angle, degrees

3.500

3.500

Incidence Angle, degrees

0.500

0.500

Aerodynamic Twist, degrees

Sweep Back Angles, degrees

Leading Edge

45.000

45.000

Trailing Edge

- 10.056

- 10.056

0.25 Element Line

35.209

35.209

Chords:

Root (Theo) B.P.O.O.

689.24

12.062

Tip, (Theo) B.P.

137.85

2.412

MAC

474.81

8.309

Fus. Sta. of .25 MAC

1136.83

19.895

W.P. of .25 MAC

290.58

5.085

B.L. of .25 MAC

182.13

3.187

EXPOSED DATA

Area (Theo)  $\text{Ft}^2$

1751.50

0.536

Span, (Theo) In. BP108

720.68

12.612

Aspect Ratio

2.059

2.059

Taper Ratio

0.245

0.245

Chords

Root BP108

562.09

9.837

Tip  $1.00 \frac{b}{2}$

137.85

2.412

MAC

392.83

6.875

Fus. Sta. of .25 MAC

1185.98

20.755

W.P. of .25 MAC

294.30

5.150

B.L. of .25 MAC

251.77

4.406

Airfoil Section (Rockwell Mod NASA)

XXXX-64

Root  $\frac{b}{2}$  =

0.113

0.113

Tip  $\frac{b}{2}$  =

0.120

0.120

Data for (1) of (2) Sides

Leading Edge Cuff

Planform Area  $\text{Ft}^2$

113.18

0.035

Leading Edge Intersects Fus M. L. @ Sta

500.00

8.750

Leading Edge Intersects Wing @ Sta

1024.00

17.920

# TABLE I(I)(Continued)

## MODEL DIMENSIONAL DATA

MODEL COMPONENT : Booster Solid Rocket Motor - S22

GENERAL DESCRIPTION : The BSRM is an external propulsion system which is jettisoned and recoverable after burnout. The BSRM's can be refurbished and reused after recovery.

DRAWING NUMBER : VC77-000002C, VC70-000002A, VC72-000002C

Model Scale: .0175

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>1789.60</u>	<u>31.318</u>
Max Width tank diameter in	<u>146.00</u>	<u>2.555</u>
Max Depth AFT shroud dia in	<u>208.20</u>	<u>3.643</u>
Fineness Ratio	<u>8.596</u>	<u>8.596</u>
Area Ft <sup>2</sup>	<u>                    </u>	<u>                    </u>
Max. Cross-Sectional	<u>236.423</u>	<u>.0724</u>
Planform	<u>                    </u>	<u>                    </u>
Wetted	<u>                    </u>	<u>                    </u>
Base	<u>                    </u>	<u>                    </u>
WP of BSRM centerline (Z-T)	<u>400.0</u>	<u>0.0700</u>
FS of BSRM nose (Z-T)	<u>743.0</u>	<u>13.003</u>
BP of BSRM centerline (Z-T)	<u>250.5</u>	<u>4.384</u>

TABLE III (Continued)  
MODEL DIMENSIONAL DATA

MODEL COMPONENT : External Tank - T28

GENERAL DESCRIPTION : nipple nose tank

DRAWING NUMBER : VL72-0001430, VL78-000063

(Dimensions are to tank structural OML, TPS not included)

Model Scale: .0175

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	<u>1844.275</u>	<u>32.275</u>
Max Width	<u>331.00</u>	<u>5.792</u>
Max Depth	<u>          </u>	<u>          </u>
Fineness Ratio	<u>5.687</u>	<u>5.687</u>
Area $FT^2$	<u>          </u>	<u>          </u>
Max. Cross-Sectional	<u>594.678</u>	<u>.1821</u>
Planform	<u>          </u>	<u>          </u>
Wetted	<u>          </u>	<u>          </u>
Base	<u>          </u>	<u>          </u>

TABLE III(Concluded)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : EXTERNAL TANK - T<sub>30</sub>

GENERAL DESCRIPTION : Ogive nose

MODEL SCALE: 0.0175

DRAWING NUMBER : VL72-000143D, VL78-000063

DIMENSIONS :

	FULL SCALE	MODEL SCALE
Length	<u>1844.275</u>	<u>32.275</u>
Max Width	<u>331.00</u>	<u>5.792</u>
Max Depth	<u></u>	<u></u>
Fineness Ratio	<u>5.687</u>	<u>5.687</u>
Area - Ft <sup>2</sup>	<u></u>	<u></u>
Max. Cross-Sectional	<u>594.678</u>	<u>0.1821</u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>
nose radius, in.	<u>9.14</u>	<u>0.16</u>

TABLE IV. THERMOCOUPLE LOCATIONS - ORBITER FUSELAGE

T/C No.	W	T/C Scale			D	T/C Location	T/C No.	Remarks
		X <sub>0</sub>	Y <sub>0</sub>	Z <sub>0</sub>				
1	0	230.0	0	0	0	.040	17-1	Bottom of
2	.001	341.47				.032		
3	.01	347.93				.033		
4	.02	350.87				.040		
5	.03	373.89				.040		
6	.04	386.73				.040		Under Trip
7	.05	399.67				.033		
8	.06	412.60				.035		
9	.07	325.53				.032		
10	.08	338.46				.032		
11	.09	351.40				.035		
12	.10	364.33				.037		
13	.12	390.20				.040		
14	.13	403.13				.033		
15	.14	416.06				.035		
16	.15	429.00				.036		
17	.16	441.93				.036		
18	.17	454.86				.035		
19	.18	467.79				.035		
20	.19	480.73				.035		
21	.20	493.66				.035		
22	.225	525.00				.035		
23	.25	558.23				.035		
24	.30	622.90				.035		
25	.35	687.66				.035		
26	.40	752.32				.034		
27	.45	816.98				.035		
28	.50	881.63	↓	↓	↓	.032	↓	↓

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TABLE IV THERMOCOUPLE LOCATIONS - ORBITER FUSELAGE (Concluded)

T/C No.	X/L	Full Scale			$\phi$	Skin Thickness	Mat'l	Remarks
		$X_0$	$Y_0$	$Z_0$				
29	.55	946.32	0	-	0	.030	17-4	Bottom C
30	.60	1011.9				.030		
31	.65	1077.6				.030		
32	.70	1143.3				.029		
33	.75	1208.9				.030		
34	.80	1269.6				.030		
35	.85	1334.3				.029		Bottom
36	.90	1399.9				.031		
37	.925	1441.3				.027		
38	.950	1482.6				.027		
39	.975	1525.9	↓	↓	↓	.023	↓	↓

TABLE V. THERMOCOUPLE LOCATIONS -- ORBITER WING

T/C No.	$\frac{2Y}{b}$	FULL SCALE			Elevon T/C	Skin Thickness	Mat'l	Remarks
		X/C	$X_0$	$Y_0$				
86	.40	0		187.3		.022	17-4	Left wing lower surface
87		.05				.031		
89		.20				.030		
90		.30				.031		
91		.40				.029		
92		.60				.033		
93		.70				.033		
94		.75				.030		
95		.85				.0295		
96		.90			X	.026		
97	↓	.95		↓	X	.0275		
109	.60	0		281.0		.034		
110		.025				.029		
111		.05				.030		
112	↓	.075		↓		.030	↓	↓

TABLE V THERMOCOUPLE LOCATIONS - ORBITER WING (Concluded)

T/C No.	$\frac{2Y}{b}$	Full Scale			Elevon T/C	Skin Thickness	Mat'l	Remarks
		X/C	X <sub>0</sub>	Y <sub>0</sub>				
114	.60	.20		281.0		.031	17-4	Left wing lower surface
115		.30				.033		
116		.40				.032		
118		.60				.032		
120		.80			X	.030		
122	↓	.90		↓	X	.0295		
133	.75	0		352.8		.028		
134		.025				.028		
135		.05				.030		
136		.10				.032		
137		.20				.032		
139	↓	.30		↓		.034		
160	.95	0		444.9		.030		
161		.05				.031		
162		.10				.030		
163		.20				.032		
164		.30				.031		
165		.50				.030		
166		.70			X	.0295		
167		.80			X	.030		
168	↓	.90		↓	X	.0295	↓	↓



TABLE VI. THERMOCOUPLE LOCATIONS - EXTERNAL TANK

T/C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
600	.04		-	-	180°	.0346	17-4	
601	.05					.0345		
602	.06					.0334		
603	.07					.0326		
604	.08					.0342		
605	.10					.0310		
606	.15					.0306		
607	.20					.0341		
608	.21					.0322		
609	.22					.0299		
610	.30					.0325		
611	.35					.0334		
612	.36					.0331		
613	.37					.0331		
614	.375					.0331		
615	.38					.0331		
616	.385					.0331		
617	.39					.0332		
618	.395					.033		
619	.40					.0332		
620	.405					.0331		
621	.41					.0331		
622	.415					.0332		
623	.42					.0329		
624	.425					.0332		
625	.43					.0331		
626	.44					.0331		
627	.445					.0328		
628	.45					.0328		
629	.455					.0323		
630	.46					.0331		
631	.47					.0331		
632	.48					.0329		
633	.49				↓	.0326	↓	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		$X_T$	$Y_T$	$Z_T$				
634	.50		-	-	180°	.0318	17-4	
635	.55					.0335		
636	.60					.0345		
637	.65					.0344		
638	.70					.0325		
639	.75					.0345		
640	.80					.0355		
641	.85					.0352		
642	.86					.0347		
643	.87					.0345		
644	.88					.0342		
645	.89					.0338		
646	.90	/				.0331		
648	.926					.0305		
649	.95				↓	.0308		
650	.35				191.25	.0331		
651	.36					.0330		
652	.37					.0331		
653	.375					.0330		
654	.38					.0330		
655	.385					.0330		
656	.39					.0330		
657	.395					.0330		
658	.40					.0329		
659	.405					.0329		
660	.41					.0330		
661	.415					.0331		
662	.42					.0330		
663	.425					.0329		
664	.43					.0326		
665	.44					.0328		
666	.45					.0328		
667	.455					.0328		
668	.46				↓	.0327	↓	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
669	.47				191.3°	.0326	17-A	
670	.42					.0326		
671	.49					.0327		
672	.50					.0320		
673	.60					.0347		
674	.70					.0327		
675	.80					.0360		
676	.85					.0350		
677	.86					.0348		
678	.87					.0345		
679	.88					.0341		
680	.89					.0336		
681	.90					.0330		
682	.91					.0305		
683	.926					.0304		
684	.95				↓	.0308		
685	.33				197°	.0331		
686	.34					.0331		
687	.35					.0331		
688	.36					.0331		
689	.37					.0331		
690	.375					.0330		
691	.50					.0331		
692	.60					.0345		
693	.70					.0328		
694	.80					.0354		
695	.87					.0349		
696	.926				↓	.0304		
697	.015				209.8	.0324		
698	.030					.0327		
699	.05					.0350		
700	.07					.0329		
701	.10					.0349		
702	.15				↓	.0311	↓	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>TP</sub>	Y <sub>TP</sub>	Z <sub>TP</sub>				
703	.20				209.8°	.0334	17-4	
704	.30					.0314		
705	.35					.0325		
706	.375					.0324		
707	.50					.0325		
708	.60					.0349		
709	.70					.0349		
710	.80					.0357		
711	.87					.0352		
712	.926				↓	.0306		
713	.015				217.7°	.0323		
714	.03					.0327		
715	.05					.0341		
716	.07					.0326		
717	.10					.0343		
718	.15					.0304		
719	.20					.0330		
720	.30					.0311		
721	.35					.0321		
722	.375					.0321		
723	.50					.0322		
724	.60					.0348		
725	.70					.0350		
726	.80					.0354		
727	.87					.0348		
728	.926				↓	.0306		
729	0.0				0.0	.0321		NIPPLE NOSE
730	.003					.0324		" "
731	0.010					.0323		" "
732	.015					.0327		" "
733	.02					.0324		" "
734	.025					.0327		" "
735	.03					.0325		" "
737	.04				↓	.0341		

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
738	.015				0.0	.0336	17-4	
739	.06					.0331		
740	.07					.0329		
741	.08					.0306		
742	.10					.0333		
743	.125					.0306		
744	.15					.0320		
745	.175					.0296		
746	.20					.0311		
747	.215					.0321		
748	.23					.0301		
749	.24					.0295		
750	.25					.0275		
751	.30					.0339		
752	.35					.0352		
753	.40					.0346		
754	.50					.0340		
755	.60					.0347		
756	.70					.0337		
757	.80					.0355		
758	.90				↓	.0344		
759	.22				55°	.0299		
760	.25					.0284		
761	.27					.0299		
762	.30					.0370		
763	.32					.0376		
764	.34					.0375		
765	.36					.0370		
766	.38					.0366		
767	.40				↓	.0356		
768	.42				67.5°	.0299		
769	.45					.0286		
770	.27					.0305		
771	.29				↓	.0359	↓	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
772	.30				67.5°	.0364	17-4	
773	.31					.0367		
774	.32					.0370		
775	.325					.0369		
776	.33					.0368		
777	.335					.0368		
778	.34					.0368		
779	.345					.0367		
780	.35					.0366		
781	.355					.0365		
782	.36					.0365		
783	.365					.0366		
784	.37					.0364		
785	.375					.0361		
786	.38					.036		
787	.39					.0359		
788	.40					.0356		
789	.50					.0347		
790	.60					.0339		
791	.70					.0315		
792	.80					.0354		
793	.90				↓	.0345		
794	.27				78°	.0312		
795	.29					.0361		
796	.30					.0367		
797	.31					.0367		
798	.32					.0369		
799	.325					.0368		
800	.33					.0368		
801	.335					.0368		
802	.34					.0368		
803	.345					.0367		
804	.35					.0367		
805	.355				↓	.0367	↓	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X T.	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
806	.36				78°	.0366	17-4	
807	.365					.0365		
808	.37					.0364		
809	.375					.0364		
810	.38					.0362		
811	.39					.0361		
812	.40				↓	.0361		
813	.23				90°	.0306		
814	.24					.0275		
815	.25					.0282		
816	.27					.0313		
817	.29					.0358		
818	.30					.0364		
819	.31					.0367		
820	.32					.0368		
821	.325					.0369		
822	.33					.0368		
823	.335					.0367		
824	.34					.0369		
825	.345					.0368		
826	.35					.0368		
828	.36					.0369		
829	.365					.0368		
830	.37					.0367		
831	.375					.0365		
832	.38					.0365		
833	.39					.0361		
834	.40					.0360		
835	.50					.0352		
836	.60					.0334		
837	.70					.0316		
838	.80					.0358		
839	.90				↓	.0348		
840	.23				112.5°	.0276	Y	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T °C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MATERIAL	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
841	.25				112.5°	.0287	17-4	
842	.27					.0318		
843	.30					.0374		
844	.33					.0369		
845	.35					.0363		
846	.37					.0361		
847	.40					.0357		
848	.45					.0354		
849	.50					.0346		
850	.55					.0333		
851	.60					.0332		
852	.65					.0327		
853	.70					.0317		
854	.75					.0343		
855	.80					.0342		
856	.90				↓	.0343		
857	.84				125.4	.0360		
858	.85					.0358		
859	.86					.0355		
860	.87					.0354		
861	.88					.0354		
862	.89					.0352		
863	.90					.0350		
864	.91					.0306		
865	.926				↓	.0307		
866	.80				129.3°	.0354		
867	.81					.0356		
868	.82					.0356		
869	.83				↓	.0355		
870	.04				135°	.0346		
871	.05					.0348		
872	.06					.0335		
873	.07					.0327		
874	.08				↓	.0315	↓	



TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X/L	FULL SCALE			$\theta$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
875	.10				135°	.0339	17-4	
876	.15					.0304		
877	.20					.0330		
878	.35					.0358		
879	.40					.0351		
880	.50					.0324		
881	.55					.0334		
882	.60					.0331		
883	.65					.0326		
884	.70					.0313		
885	.75					.0353		
886	.80					.0354		
887	.84					.0354		
888	.85					.0351		
889	.86					.0352		
890	.87					.0350		
891	.88					.0348		
892	.89					.0342		
893	.90					.0388		
894	.91					.0305		
895	.926					.0306		
896	.95				↓	.0308		
897	.42				142.3	.0346		
898	.435					.0356		
899	.45					.0340		
900	.50					.0334		
901	.60					.0335		
902	.70				↓	.0326		
913	.935				154.98	.0306		
914	.945				154.98	.0309	↓	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X'L	FULL SCALE			O	SKIN THICKNESS	MAT'L.	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	ΔT				
917	.07				157.5°	.0320	17-4	
918	.08					.0326		
920	.10					.0333		
921	.15					.0307		
922	.20					.0334		
923	.42					.0341		
924	.435					.0340		
925	.45					.0337		
926	.85					.0344		
927	.86					.0343		
928	.87					.0342		
929	.88					.0340		
930	.89					.0338		
931	.90					.0330		
932	.91					.0304		
933	.926				↓	.0305		
934	.415				163.1°	.0343		
935	.42					.0340		
936	.425					.0339		
937	.43					.0339		
938	.44					.0340		
939	.445					.0335		
940	.45					.0335		
941	.50					.0328		
942	.60					.0345		
943	.70					.0324		
944	.70				↓	.0341		
945	.75				168.0°	.0352		
946	.36					.0350		
947	.37					.0349		
948	.375				↓	.0349	↓	

TABLE VI THERMOCOUPLE LOCATIONS - EXTERNAL TANK (Continued)

T/C NO.	X <sub>T</sub>	THERMOCOUPLE			θ	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
950	.385				168°	.0345	17-4	
951	.39					.0343		
952	.395					.0348		
953	.40					.0342		
954	.405					.0341		
955	.41					.0341		
956	.415					.0340		
957	.42					.0339		
958	.425					.0339		
959	.43					.0340		
960	.44					.0339		
961	.445					.0339		
962	.45					.0337		
963	.455					.0337		
964	.46					.0335		
965	.47					.0334		
966	.48					.0331		
967	.49					.0331		
968	.85					.0343		
969	.86					.0342		
970	.87					.0341		
971	.88					.0340		
972	.89					.0335		
973	.90					.0327		
974	.91					N/A		
975	.926					N/A		
976	.95					N/A		

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TABLE VI - THERMOCOUPLE LOCATIONS -EXTERNAL TANK (Concluded)

T/C No.	X/L	Full Scale			θ	Skin THICKNESS	MAT'L	REMARKS
		X <sub>T</sub>	Y <sub>T</sub>	Z <sub>T</sub>				
977	.012				0°	.0351	17-4	OGIVE NOSE
978	.015					.0325		
979	.018					.0322		
980	.024					.0332		
981	.031				↓	.0347		↓
982	.020				180°	.0320		NIPPLE NOSE
983	.025				↓	.0322		NIPPLE NOSE
984	.030				↓	.0324		NIPPLE NOSE
985	.040				90°	.0342		
986	.05					.0344		
987	.06					.0338		
988	.07					.0331		
989	.08					.0314		
990	.10					.0341		
991	.15					.0303		
992	.20				↓	.0329	↓	

TABLE VII. THERMOCOUPLE LOCATIONS - SRB

T/C NO.	X/Y	FULL SCALE			$\psi$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>S</sub>	Y <sub>S</sub>	Z <sub>S</sub>				
1000	.115	700.19			180°	.030	17-4	
1001	.20	711.0				.030		
1002	.225	723.1				.030		
1003	.25	734.2				.030		
1004	.30	747.56				.030		
1005	.40	790.15				.031		
1006	.5	862.0				.0304		
1007	.55	885.86				.0304		
1008	.60	905.12				.030		
1009	.65	921.33				.0302		
1010	.7	937.64				.029		
1011	.750	953.90				.028		
1012	.80	960.16				.029		
1013	.875	999.55				.030		
1014	.925	1025.87				.0299		
1015	.939	1039.91			↓	.0292		
1016	.953	1044.53			175°	.0285		
1017	.967	1057.80				.0299		
1018	.980	1061.00				.0301		
1019	.994	1014.37			↓	.0305		
1020	.115	390.19			225°	.030		
1021	.143	446.70				.030		
1022	.171	495.01				.030		
1023	.2	545.04				.030		
1024	.3	717.56				.030		
1025	.4	890.08				.031		
1026	.5	1062.60				.0303		
1027	.55	1133.86				.0302		
1028	.6	1235.12				.030		
1029	.65	1321.33				.0302		
1030	.7	1407.64				.0295		
1031	.8	1500.16				.0295		
1032	.875	1709.55				.0294		
1033	.925	1905.87			↓	.0299	↓	

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TABLE VII. THERMOCOUPLE LOCATIONS - SRB (Continued)

T/C NO.	X/L	FULL SCALE			W	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>S</sub>	Y <sub>S</sub>	Z <sub>S</sub>				
1034	.952	1844.73			230°	.0295	17-4	
1035	.967	1867.81				.0296		
1036	.980	1891.09				.030		
1037	.994	1914.37			↓	.030		
1038	0	200.0			270°	.0303		
1039	.002	203.89				.0305		45° Radius
1040	.008	213.27				.030		90° Radius
1041	.05	286.26				.030		
1042	.1	372.52				.030		
1043	.12	407.024				.030		
1044	.127	419.10				.030		
1045	.134	431.173				.030		
1046	.173	498.46				.030		
1047	.180	510.535				.030		
1048	.186	520.887				.030		
1049	.193	532.964				.030		
1050	.2	545.04				.030		
1051	.25	631.30				.030		
1052	.3	717.56				.030		
1053	.4	890.08				.0314		
1054	.5	1062.6				.0305		
1055	.6	1235.12				.0302		
1056	.7	1407.64				.0302		
1057	.75	1493.9				.0285		
1058	.8	1580.16				.030		
1059	.875	1709.55				.030		
1060	.925	1795.81				.0301		
1061	.953	1844.58				.028		
1062	.967	1867.81				.028		
1063	.980	1891.09				.0287		
1064	.994	1914.37			↓	.029	↓	

TABLE VII. THERMOCOUPLE LOCATIONS - SRB (Continued)

T/C NO.	X/L	FULL SCALE			$\Psi$	SKIN THICKNESS	MAT'L	REMARKS
		$X_S$	$Y_S$	$Z_S$				
1065	.115	399.19			315°	.030	17-4	
1066	.143	413.7				.030		
1067	.171	425.01				.030		
1068	.2	545.03				.030		
1069	.3	717.58				.030		
1070	.5	1062.6				.0305		
1071	.6	1235.12				.030		
1072	.7	1407.64				.0295		
1073	.8	1580.16				.0295		
1074	.953	1844.53				.029		
1075	.967	1867.81				.0295		
1076	.980	1891.09				.0298		
1077	.994	1914.37			↓	.0295		
1084	.953	1844.53			0°	.0291		
1094	.115	399.19			76°	.030		
1095	.128	420.83				.030		
1096	.146	451.88				.030		
1097	.2	545.04				.030		
1098	.4	890.08				.0315		
1099	.6	1235.12				.0302		
1100	.8	1580.16				.030		
1101	.875	1709.55			↓	.030		
1102	.05	286.26			90°	.030		
1103	.1	372.52				.030		
1104	.115	399.19				.030		
1105	.146	451.88				.030		
1110	.953	1844.53				.030		
1111	.967	1867.81				.030		
1112	.980	1891.09				.030		
1113	.994	1914.37			↓	.030	↓	

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TABLE VII. THERMOCOUPLE LOCATIONS - SRB (Continued)

T/C NO.	X/I	FULL SCALE			$\psi$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>S</sub>	Y <sub>S</sub>	Z <sub>S</sub>				
1114	.115	399.19			104°	.030	17-4	
1115	.128	420.83				.030		
1116	.146	451.88				.030		
1117	.2	545.04				.030		
1118	.4	890.08				.0314		
1119	.6	1235.12				.0302		
1120	.8	1580.16				.0295		
1121	.875	1709.55			↓	.0299		
1122	.115	399.19			135°	.030		
1123	.146	451.88				.030		
1124	.177	505.36				.030		
1125	.2	545.04				.030		
1126	.3	717.56				.030		
1127	.5	1062.60				.0305		
1128	.6	1235.12				.0302		
1129	.7	1407.64				.0298		
1130	.8	1580.16				.0295		
1131	.875	1709.55				.030		
1132	.925	1795.81				.030		
1133	.953	1844.53				.0295		
1134	.967	1867.81				.0295		
1135	.980	1891.09				.030		
1136	.994	1914.35			↓	.0299		
1200	.043	274.3			245°	.030		RCS (Nose)
1201	.05	246.2				.030		
1202	.067	297.05				.030		
1203	.067	309.0				.030		
1204	.090	353.26				.030		
1205	.10	372.31			↓	.030		
1206	.05	246.2			215°	.0298		
1207	.09	353.26			↓	.030	↓	



TABLE VII THERMOCOUPLE LOCATIONS - SRB (Concluded)

T/C NO.	X'L	FULL SCALE			$\psi$	SKIN THICKNESS	MAT'L	REMARKS
		X <sub>S</sub>	Y <sub>S</sub>	Z <sub>S</sub>				
1208	.100	372.51			215°	.030	17-4	
1209	.05	286.23		185°		.0298		
1210	.09	355.26				.030		
1211	.10	372.51			↓	.030		
1212	.043	274.8			155°	.030		
1213	.05	286.23			↓	.030		
1214	.057	297.66			↓	.030		
1215	.062	309.08			↓	.030		
1216	.09	355.26			↓	.030		
1217	.10	372.51			↓	.030		
1220	.965	1644.82			184.38°	.0295		RCS (Skirt)
1221	.975	1682.07			↓	.0296		
1222	.985	1699.32			↓	.0299		
1223	.995	1716.57			↓	.030		
1224	.965	1664.82			200°	.030		
1225	.975	1682.07			↓	.030		
1226	.985	1699.32			↓	.0298		
1227	.995	1716.57			↓	.0299		
1228	.965	1664.82			220°	.0298		
1229	.975	1682.07			↓	.0298		
1230	.985	1699.32			↓	.0297		
1231	.995	1716.57			↓	.030	↓	

TABLE VIII. TRIP RING DIMENSIONS

<u>CONFIG.</u>	<u>COMPONENT</u>	<u>DATA SET</u>	<u>BALL DIAMETER (in.)</u>	<u>X/L*</u>
OTS ↓ OT ↓ ET  ET  ET	ORBITER	1	.025	.040
	ET	1	None	—
	SRB	1	.015	.019
		2	.015	.040
	ORBITER	2	.025	.070**
	ET	2	.025	.019
	SRB			
	ORBITER	3 to 10	.025	.040
	ET	3 to 10	.025	.081
	SRB	3 to 10	.025	.019
	ORBITER	11 to 15	.025	.040
	ET	11 to 15	.025	.081
	ET/NIPPLE NOSE	16 to 19	None	—
	ET/OGIVE	20 to 23	None	—
	ET/OGIVE	24 to 27	.025	—

\*Reference lengths, L (in.):      Full Scale      Model Scale

ORBITER:	1293.300	22.633
ET:	1845.428	32.295
SRB:	1725.20	30.191

\*\* ET trips changed from X/L = .070 to X/L = .081 during Data set #2 (pre run 20)

TABLE IX. THERMOCOUPLE HOOKUP SCHEDULE  
Orbiter Constant Set  
100 (plugs 1 thru 5)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	
ORB #1	1	1	1	ORB #3	34	34	ORB #5	66	139	66
	2	2	2		35	35		67	160	67
	3	3	3		36	36		68	161	68
	4	4	4		37	37		69	162	69
	5	5	5		38	38		70	163	70
	6	6	6		39	39		71	164	71
	7	7	7		40	86		72	165	72
	8	8	8		41	87		73	166	73
	9	9	9		42	89		74	167	74
	10	10	10		43	90		75	168	75
ORB #2	11	11	11	ORB #4	44	91				
	12	12	12		45	92				
	13	13	13		46	93				
	14	14	14		47	94				
	15	15	15		48	95				
	16	16	16		49	96				
	17	17	17		50	97				
	18	18	18		51	109				
	19	19	19		52	110				
	20	20	20		53	111				
ORB #3	21	21	21	ORB #5	54	112				
	22	22	22		55	114				
	23	23	23		56	115				
	24	24	24		57	116				
	25	25	25		58	118				
	26	26	26		59	120				
	27	27	27		60	122				
	28	28	28		61	133				
	29	29	29		62	134				
	30	30	30		63	135				
	31	31		64	136					
	32	32		65	137					
	33	33								

TABLE IX - (Cont'd)  
EXTERNAL TANK CONSTANT SET  
400 (PLUGS 1 THRU 5)

Plug No.	Channel No.	I/C No.	Scope Pos.		Channel No.	I/C No.	Scope Pos.		Channel No.	I/C No.	Scope Pos.
#1	1	600	1	#3	34	633	34	#5	66	666	66
	2	601	2		35	634	35		67	667	67
	3	602	3		36	635	36		68	668	68
	4	603	4		37	636	37		69	669	69
	5	604	5		38	637	38		70	670	70
	6	605	6		39	638	39		71	671	71
	7	606	7		40	639	40		72	672	72
	8	607	8		41	640	41		73	673	73
	9	608	9		42	641	42		74	674	74
	10	609	10		43	642	43		75	675	75
#2	11	610	11	#4	44	643	44	#5	.	.	.
	12	611	12		45	644	45		.	.	.
	13	612	13		46	645	46		.	.	.
	14	613	14		47	646	47		.	.	.
	15	614	15		48	648	48		.	.	.
	16	615	16		49	649	49		.	.	.
	17	616	17		50	650	50		.	.	.
	18	617	18		51	651	51		.	.	.
	19	618	19		52	652	52		.	.	.
	20	619	20		53	653	53		.	.	.
#3	21	620	21	#5	54	654	54	#5	.	.	.
	22	621	22		55	655	55		.	.	.
	23	622	23		56	656	56		.	.	.
	24	623	24		57	657	57		.	.	.
	25	624	25		58	658	58		.	.	.
	26	625	26		59	659	59		.	.	.
	27	626	27		60	660	60		.	.	.
	28	627	28		61	661	61		.	.	.
	29	628	29		62	662	62		.	.	.
	30	629	30		63	663	63		.	.	.
	31	630	31		64	664	64		.	.	.
	32	631	32		65	665	65		.	.	.
	33	632	33						.	.	.

TABLE IX - (Cont'd)  
EXTERNAL TANK CONSTANT SET (WITH INTERSTAGE)  
401 (PLUGS 1 THRU 5)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.
#1	1	600	1	34	633	34	66	666	66
	2	601	2	35	634	35	67	667	67
	3	602	3	36	635	36	68	668	68
	4	603	4	37	636	37	69	669	69
	5	604	5	38	637	38	70	670	70
	6	605	6	39	638	39	71	671	71
	7	606	7	40	639	40	72	672	72
	8	607	8	41	640	41	73	673	73
	9	608	9	42	641	42	74	674	74
	10	609	10	43	642	43	75	675	75
#2	11	610*	11	44	643	44	.	.	.
	12	611*	12	45	644	45	.	.	.
	13	612*	13	46	645	46	.	.	.
	14	613*	14	47	646	47	.	.	.
	15	614*	15	48	648	48	.	.	.
	16	615*	16	49	649	49	.	.	.
	17	616*	17	50	650*	50	.	.	.
	18	617*	18	51	651*	51	.	.	.
	19	618*	19	52	652*	52	.	.	.
	20	619*	20	53	653*	53	.	.	.
#3	21	620*	21	54	654*	54	.	.	.
	22	621*	22	55	655*	55	.	.	.
	23	622*	23	56	656*	56	.	.	.
	24	623*	24	57	657*	57	.	.	.
	25	624*	25	58	658*	58	.	.	.
	26	625*	26	59	659*	59	.	.	.
	27	626	27	60	660*	60	.	.	.
	28	627	28	61	661*	61	.	.	.
	29	628	29	62	662*	62	.	.	.
	30	629	30	63	663*	63	.	.	.
#4	31	630	31	64	664*	64	.	.	.
	32	631	32	65	665	65	.	.	.
	33	632	33						

\* = Under interstage unit

TABLE IX (Cont'd)  
EXTERNAL TANK CONSTANT SET  
410 (PLUGS 6 THRU 10)

Plug No.	Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.
#6	1	676	1	#8	34	709	34	#10	66	742	66
	2	677	2		35	710	35		67	743	67
	3	678	3		36	711	36		68	744	68
	4	679	4		37	712	37		69	745	69
	5	680	5		38	713	38		70	746	70
	6	681	6		39	714	39		71	747	71
	7	682	7		40	715	40		72	748	72
	8	683	8		41	716	41		73	749	73
	9	684	9		42	717	42		74	750	74
	10	685	10		43	718	43		75	751	75
#7	11	686	11	#9	44	719	44	#11			
	12	687	12		45	720	45				
	13	688	13		46	721	46				
	14	689	14		47	722	47				
	15	690	15		48	723	48				
	16	691	16		49	724	49				
	17	692	17		50	725	50				
	18	693	18		51	726	51				
	19	694	19		52	727	52				
	20	695	20		53	728	53				
	21	696	21		54	729	54				
	22	697	22		55	730	55				
	23	698	23		56	731	56				
	24	699	24		57	732	57				
	25	700	25		58	733	58				
	26	701	26		59	734	59				
	27	702	27		60	735	60				
	28	703	28		61	737	61				
	29	704	29		62	738	62				
	30	705	30		63	739	63				
	31	706	31		64	740	64				
	32	707	32		65	741	65				
	33	708	33								

TABLE IX (Cont'd)  
EXTERNAL TANK CONSTANT SET (WITH INTERSTAGE)  
411 (PLUGS 6 THRU 10)

Plug No.	Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.
#6	1	676	1	#8	34	709	34	#10	66	742	66
	2	677	2		35	710	35		67	743	67
	3	678	3		36	711	36		68	744	68
	4	679	4		37	712	37		69	745	69
	5	680	5		38	713	38		70	746	70
	6	681	6		39	714	39		71	747	71
	7	682	7		40	715	40		72	748	72
	8	683	8		41	716	41		73	749	73
	9	684	9		42	717	42		74	750	74
	10	685 *	10		43	718	43		75	751	75
#7	11	686 *	11	#9	44	719	44	#10			
	12	687 *	12		45	720 *	45				
	13	688 *	13		46	721 *	46				
	14	689 *	14		47	722 *	47				
	15	690 *	15		48	723	48				
	16	691	16		49	724	49				
	17	692	17		50	725	50				
	18	693	18		51	726	51				
	19	694	19		52	727	52				
	20	695	20		53	728	53				
#7	21	696	21	#9	54	729	54	#10			
	22	697	22		55	730	55				
	23	698	23		56	731	56				
	24	699	24		57	732	57				
	25	700	25		58	733	58				
	26	701	26		59	734	59				
	27	702	27		60	735	60				
	28	703	28		61	737	61				
	29	704 *	29		62	738	62				
	30	705 *	30		63	739	63				
#7	31	706 *	31	#10	64	740	64	#10			
	32	707	32		65	741	65				
	33	708	33								

\* = Under interstage unit

TABLE IX (Cont'd)  
EXTERNAL TANK CONSTANT SET  
420 (PLUGS 11 THRU 15)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.		
#11	1	752	1	#13	34	785	34	#15	66	817	66
	2	753	2		35	786	35		67	818	67
	3	754	3		36	787	36		68	819	68
	4	755	4		37	788	37		69	820	69
	5	756	5		38	789	38		70	821	70
	6	757	6		39	790	39		71	822	71
	7	758	7		40	791	40		72	823	72
	8	759	8		41	792	41		73	824	73
	9	760	9		42	793	42		74	825	74
	10	761	10		43	794	43		75	826	75
#12	11	762	11	#14	44	795	44	#15			
	12	763	12		45	796	45				
	13	764	13		46	797	46				
	14	765	14		47	798	47				
	15	766	15		48	799	48				
	16	767	16		49	800	49				
	17	768	17		50	801	50				
	18	769	18		51	802	51				
	19	770	19		52	803	52				
	20	771	20		53	804	53				
#13	21	772	21	#15	54	805	54	#15			
	22	773	22		55	806	55				
	23	774	23		56	807	56				
	24	775	24		57	808	57				
	25	776	25		58	809	58				
	26	777	26		59	810	59				
	27	778	27		60	811	60				
	28	779	28		61	812	61				
	29	780	29		62	813	62				
	30	781	30		63	814	63				
	31	782	31	64	815	64					
	32	783	32	65	816	65					
	33	784	33								



TABLE LX (Cont'd)  
EXTERNAL TANK CONSTANT SET (WITH INTERSTAGE)  
421 (PLUGS 11 THRU 15)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.
#11	1	752*	1	#13	34	785*	66	817*	66
	2	753*	2		35	786*	67	818*	67
	3	754	3		36	787*	68	819*	68
	4	755	4		37	788*	69	820*	69
	5	756	5		38	789	70	821*	70
	6	757	6		39	790	71	822*	71
	7	758	7		40	791	72	823*	72
	8	759	8		41	792	73	824*	73
	9	760	9		42	793	74	825*	74
	10	761	10		43	794	75	826*	75
#12	11	762*	11	#14	44	795*			
	12	763*	12		45	796*			
	13	764*	13		46	797*			
	14	765*	14		47	798*			
	15	766*	15		48	799*			
	16	767*	16		49	800*			
	17	768	17		50	801*			
	18	769	18		51	802*			
	19	770	19		52	803*			
	20	771*	20		53	804*			
#13	21	772*	21		54	805*			
	22	773*	22		55	806*			
	23	774*	23		56	807*			
	24	775*	24		57	808*			
	25	776*	25		58	809*			
	26	777*	26		59	810*			
	27	778*	27		60	811*			
	28	779*	28		61	812*			
	29	780*	29		62	813			
	30	781*	30		63	814			
#13	31	782*	31		64	815			
	32	783*	32		65	816			
	33	784*	33						

\* = Under interstage unit

TABLE IX (Cont'd)  
EXTERNAL TANK CONSTANT SET  
430 (PLUGS 16 THRU 20)

Plug No.	Channel No.	1/4 No.	Scope Pos.	Channel No.	1/4 No.	Scope Pos.	Channel No.	1/4 No.	Scope Pos.	
#16	1	828	1	34	861	34	#20	66	893	66
	2	829	2	35	862	35		67	894	67
	3	830	3	36	863	36		68	895	68
	4	831	4	37	864	37		69	896	69
	5	832	5	38	865	38		70	897	70
	6	833	6	39	866	39		71	898	71
	7	834	7	40	867	40		72	899	72
	8	835	8	41	868	41		73	900	73
	9	836	9	42	869	42		74	901	74
	10	837	10	43	870	43		75	902	75
	11	838	11	44	871	44				
	12	839	12	45	872	45				
	13	840	13	46	873	46				
	14	841	14	47	874	47				
	15	842	15	48	875	48				
#17	16	843	16	49	876	49				
	17	844	17	50	877	50				
	18	845	18	51	878	51				
	19	846	19	52	879	52				
	20	847	20	53	880	53				
	21	848	21	54	881	54				
	22	849	22	55	882	55				
	23	850	23	56	883	56				
	24	851	24	57	884	57				
	25	852	25	58	885	58				
	26	853	26	59	886	59				
	27	854	27	60	887	60				
	28	855	28	61	888	61				
	29	856	29	62	889	62				
	30	857	30	63	890	63				
	31	858	31	64	891	64				
	32	859	32	65	892	65				
	#18	33	860	33						

TABLE IX (Cont'd)  
EXTERNAL TANK CONSTANT SET (WITH INTERSTAGE)  
431 (PLUGS 16 THRU 20)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.		
#16	1	828*	1	#18	34	861	34	#20	66	893	66
	2	829*	2		35	862	35		67	894	67
	3	830*	3		36	863	36		68	895	68
	4	831*	4		37	864	37		69	896	69
	5	832*	5		38	865	38		70	897*	70
	6	833*	6		39	866	39		71	898	71
	7	834*	7		40	867	40		72	899	72
	8	835	8		41	868	41		73	900	73
	9	836	9		42	869	42		74	901	74
	10	837	10		43	870	43		75	902	75
#17	11	838	11	#19	44	871	44				
	12	839	12		45	872	45				
	13	840	13		46	873	46				
	14	841	14		47	874	47				
	15	842	15		48	875	48				
	16	843*	16		49	876	49				
	17	844*	17		50	877	50				
	18	845*	18		51	878*	51				
	19	846*	19		52	879*	52				
	20	847*	20		53	880	53				
#18	21	848	21	#20	54	881	54				
	22	849	22		55	882	55				
	23	850	23		56	883	56				
	24	851	24		57	884	57				
	25	852	25		58	885	58				
	26	853	26		59	886	59				
	27	854	27		60	887	60				
	28	855	28		61	888	61				
	29	856	29		62	889	62				
	30	857	30		63	890	63				
	31	858	31		64	891	64				
	32	859	32		65	892	65				
	33	860	33								

\* = Under interstage unit

TABLE IX Cont'd)  
EXTERNAL TANK CONSTANT SET  
440 (PLUGS 22 THRU 26)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.
22	1	918	1	34	951	34	66	988	66
	2	919	2	35	952	35	67	989	67
	3	920	3	36	953	36	68	990	68
	4	921	4	37	954	37	69	991	69
	5	922	5	38	955	38	70	None	70
	6	923	6	39	956	39	71	None	71
	7	924	7	40	957	40	72	None	72
	8	925	8	41	958	41	73	None	73
	9	926	9	42	959	42	74	None	74
	10	927	10	43	960	43	75	914	75
	11	928	11	44	961	44			
	12	929	12	45	962	45			
	13	930	13	46	963	46			
	14	931	14	47	964	47			
	15	932	15	48	965	48			
	16	933	16	49	966	49			
	17	934	17	50	967	50			
	18	935	18	51	968	51			
	19	936	19	52	969	52			
	20	937	20	53	970	53			
	21	938	21	54	971	54			
	22	939	22	55	972	55			
23	23	940	23	56	973	56			
	24	941	24	57	974	57			
	25	942	25	58	975	58			
	26	943	26	59	976	59			
	27	944	27	60	982	60			
	28	945	28	61	983	61			
	29	946	29	62	984	62			
	30	947	30	63	985	63			
	31	948	31	64	986	64			
	32	913	32	65	987	65			
24	33	950	33						

TABLE IX (Cont'd)  
EXTERNAL TANK CONSTANT SET (WITH INTERSTAGE)  
441 (PLUGS 22 THRU 26)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.
	1	918	1	34	951*	34	66	988	66
	2	919	2	35	952*	35	67	989	67
	3	920	3	36	953*	36	68	990	68
	4	921	4	37	954*	37	69	991	69
	5	922	5	38	955*	38	70	None	70
	6	923*	6	39	956*	39	71	None	71
	7	924	7	40	957*	40	72	None	72
	8	925	8	41	958*	41	73	None	73
	9	926	9	42	959*	42	74	None	74
	10	927	10	43	960	43	75	914	75
	11	928	11	44	961	44			
	12	929	12	45	962	45			
	13	930	13	46	963	46			
	14	931	14	47	964	47			
	15	932	15	48	965	48			
	16	933	16	49	966	49			
	17	934*	17	50	967	50			
	18	935*	18	51	968	51			
	19	936*	19	52	969	52			
	20	937*	20	53	970	53			
	21	938	21	54	971	54			
	22	939	22	55	972	55			
	23	940	23	56	973	56			
	24	941	24	57	974	57			
	25	942	25	58	975	58			
	26	943	26	59	976	59			
	27	944	27	60	982	60			
	28	945*	28	61	983	61			
	29	946*	29	62	984	62			
	30	947*	30	63	985	63			
	31	948*	31	64	986	64			
	32	913*	32	65	987	65			
	33	950	33						

TABLE IX (Cont'd)  
EXTERNAL TANK  
CONSTANT SET 610  
(OGIVE NOSE)

Plug No.	Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.
#1	1	600	1	#9	34	724	34	#13	66	719	66
	2	601	2		35	725	35		67	788	67
	3	602	3		36	726	36		68	789	68
	4	603	4		37	727	37		69	790	69
	5	604	5		38	715	38		70	791	70
	6	605	6		39	None	39		71	792	71
	7	606	7		40	None	40		72	793	72
	8	607	8		41	None	41		73	720	73
	9	608	9		42	None	42		74	752	74
	10	609	10		43	None	43		75	753	75
#3	11	610	11	#10	44	None	44	#13			
	12	611	12		45	None	45				
	13	616	13		46	737	46				
	14	622	14		47	738	47				
	15	624	15		48	739	48				
	16	628	16		49	740	49				
	17	646	17		50	741	50				
	18	632	18		51	742	51				
	19	658	19		52	743	52				
	20	634	20		53	744	53				
#9	21	635	21	#13	54	745	54	#13			
	22	636	22		55	746	55				
	23	637	23		56	747	56				
	24	638	24		57	748	57				
	25	639	25		58	749	58				
	26	640	26		59	750	59				
	27	672	27		60	751	60				
	28	673	28		61	716	61				
	29	674	29		62	783	62				
	30	675	30		63	717	63				
	31	721	31	64	718	64					
	32	681	32	65	786	65					
	33	723	33								

TABLE IX (Cont'd)  
EXTERNAL TANK  
CONSTANT SET 611  
(NIPPLE NOSE)

Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	
#1	1	600	1	34	724	34	#13	66	719	66
	2	601	2	35	725	35		67	788	67
	3	602	3	36	726	36		68	789	68
	4	603	4	37	727	37		69	790	69
	5	604	5	38	715	38		70	791	70
	6	605	6	39	729	39		71	792	71
	7	606	7	40	730	40		72	793	72
	8	607	8	41	731	41		73	720	73
	9	608	9	42	732	42		74	752	74
	10	609	10	43	733	43		75	753	75
	11	610	11	44	734	44				
	12	611	12	45	735	45				
	13	616	13	46	737	46				
	14	622	14	47	738	47				
	15	624	15	48	739	48				
	16	628	16	49	740	49				
	17	646	17	50	741	50				
	18	632	18	51	742	51				
	19	658	19	52	743	52				
	20	634	20	53	744	53				
	21	635	21	54	745	54				
	22	636	22	55	746	55				
	23	637	23	56	747	56				
	24	638	24	57	748	57				
	25	639	25	58	749	58				
	26	640	26	59	750	59				
	27	672	27	60	751	60				
	28	673	28	61	716	61				
	29	674	29	62	783	62				
	30	675	30	63	717	63				
	31	721	31	64	718	64				
	32	681	32	65	786	65				
	33	723	33							

TABLE IX (Cont'd)  
EXTERNAL TANK  
CONSTANT SET 620  
(OGIVE NOSE)

Plug No.	Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.		Channel No.	T/C No.	Scope Pos.
	1	843	1		34	815	34		66	988	66
	2	844	2		35	816	35		67	989	67
	3	845	3		36	817	36		68	990	68
	4	846	4		37	818	37		69	991	69
	5	847	5		38	757	38		70	977	70
	6	848	6	#15	39	820	39	#26	71	978	71
#17	7	849	7		40	758	40		72	979	72
	8	850	8		41	822	41		73	980	73
	9	851	9		42	770	42		74	981	74
	10	852	10		43	772	43		75	992	75
	11	853	11		44	774	44				
	12	854	12		45	826	45				
	13	855	13		46	776	46				
	14	856	14		47	780	47				
	15	754	15		48	829	48				
	16	873	16		49	832	49				
	17	874	17		50	834	50				
	18	875	18		51	835	51				
	19	876	19		52	836	52				
	20	877	20	#16	53	837	53				
	21	878	21		54	838	54				
	22	879	22		55	839	55				
#19	23	880	23		56	842	56				
	24	881	24		57	870	57				
	25	882	25		58	871	58				
	26	883	26		59	872	59				
	27	884	27		60	893	60				
	28	885	28		61	983	61				
	29	886	29		62	984	62				
	30	755	30	#26	63	985	63				
	31	756	31		64	986	64				
#15	32	813	32		65	987	65				
	33	814	33								



TABLE IX (Cont'd)  
EXTERNAL TANK  
CONSTANT SET 621  
(NIPPLE NOSE)

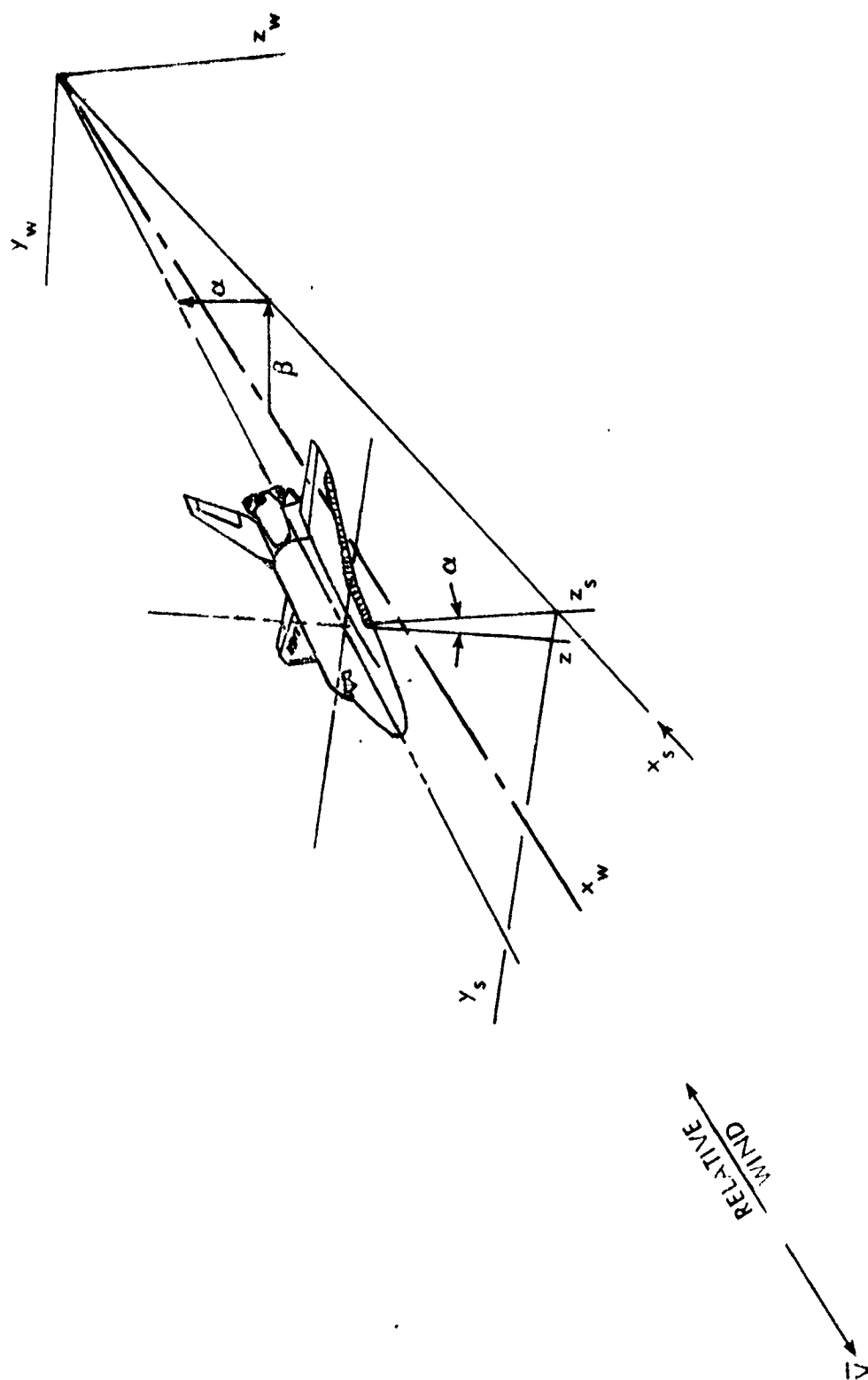
Plug No.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.
#17	1	843	1	34	815	34	66	988	66
	2	844	2	35	816	35	67	989	67
	3	845	3	36	817	36	68	990	68
	4	846	4	37	818	37	69	991	69
	5	847	5	38	757	38	70	None	70
	6	848	6	39	820	39	71	None	71
	7	849	7	40	758	40	72	None	72
	8	850	8	41	822	41	73	None	73
	9	851	9	42	770	42	74	None	74
	10	852	10	43	772	43	75	992	75
	11	853	11	44	774	44	.	.	.
	12	854	12	45	826	45	.	.	.
	13	855	13	46	776	46	.	.	.
	14	856	14	47	780	47	.	.	.
	15	754	15	48	829	48	.	.	.
#19	16	873	16	49	832	49	.	.	.
	17	874	17	50	834	50	.	.	.
	18	875	18	51	835	51	.	.	.
	19	876	19	52	836	52	.	.	.
	20	877	20	53	837	53	.	.	.
	21	878	21	54	838	54	.	.	.
	22	879	22	55	839	55	.	.	.
	23	880	23	56	842	56	.	.	.
	24	881	24	57	870	57	.	.	.
	25	882	25	58	871	58	.	.	.
	26	883	26	59	872	59	.	.	.
	27	884	27	60	893	60	.	.	.
	28	885	28	61	983	61	.	.	.
	29	886	29	62	984	62	.	.	.
	30	755	30	63	985	63	.	.	.
#15	31	756	31	64	986	64	.	.	.
	32	813	32	65	987	65	.	.	.
	33	814	33				.	.	.

1.

1991

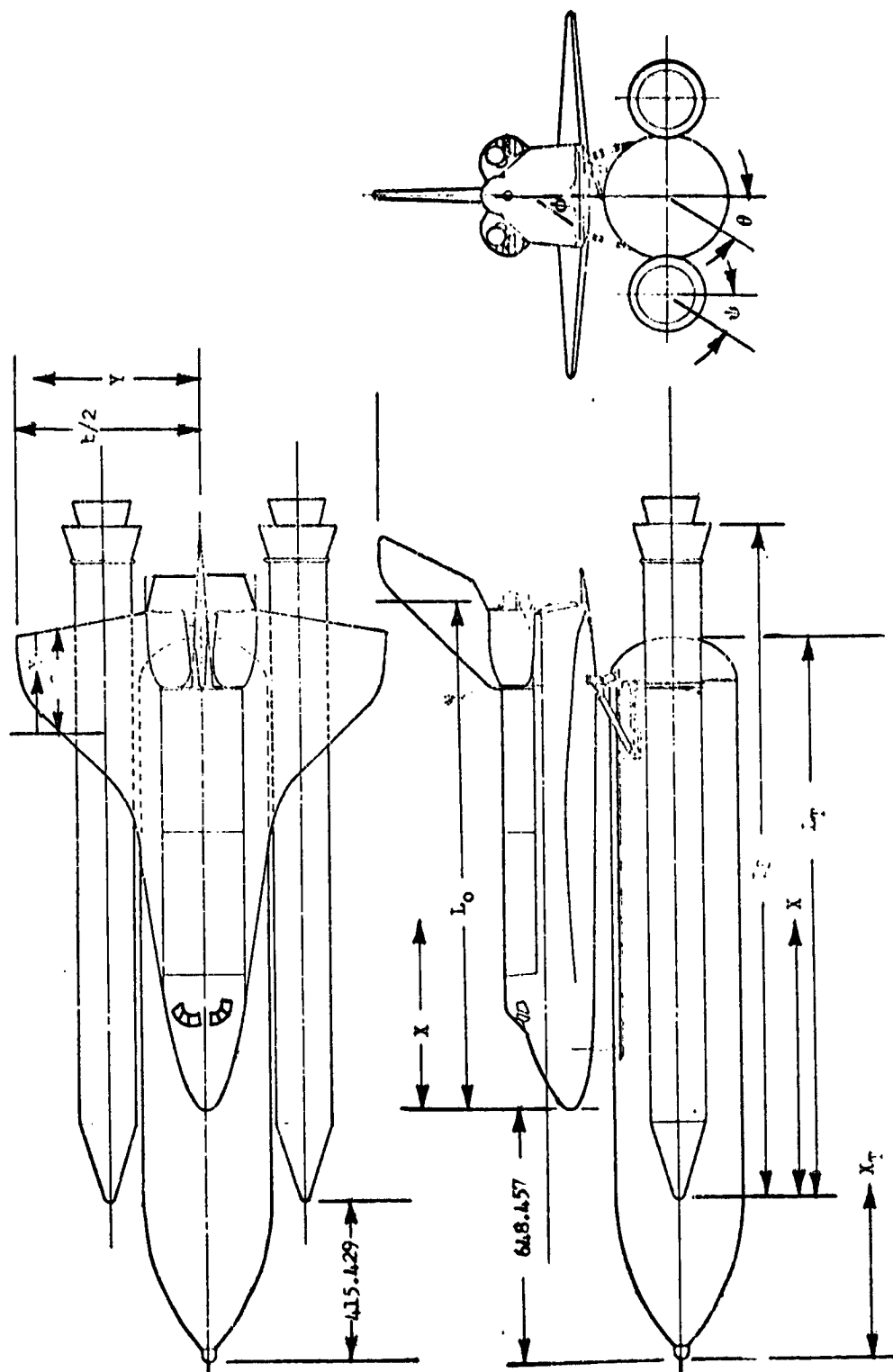
TABLE IX. (Concl'd)  
SOLID ROCKET BOOSTER CONSTANT SET  
820 (PLUGS 6 THRU 11)

Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.	Channel No.	T/C No.	Scope Pos.
1	1075	1	34	1127	34	66	1222	66
2	1076	2	35	1028	35	67	1223	67
3	1077	3	36	1129	36	68	1224	68
4	1084	4	37	1130	37	69	1225	69
5	1094	5	38	1131	38	70	1226	70
6	1095	6	39	1132	39	71	1227	71
7	1096	7	40	1133	40	72	1228	72
8	1097	8	41	1134	41	73	1229	73
9	1098	9	42	1135	42	74	1230	74
10	1099	10	43	1136	43	75	1231	75
11	1100	11	44	1200	44			
12	1101	12	45	1201	45			
13	1102	13	46	1202	46			
14	1103	14	47	1203	47			
15	1104	15	48	1204	48			
16	1105	16	49	1205	49			
17	1110	17	50	1206	50			
18	1111	18	51	1207	51			
19	1112	19	52	1208	52			
20	1113	20	53	1209	53			
21	1114	21	54	1210	54			
22	1115	22	55	1211	55			
23	1116	23	56	1212	56			
24	1117	24	57	1213	57			
25	1118	25	58	1214	58			
26	1119	26	59	1215	59			
27	1120	27	60	1216	60			
28	1121	28	61	1217	61			
29	1122	29	62	BLANK	62			
30	1123	30	63	BLANK	63			
31	1124	31	64	1220	64			
32	1125	32	65	1221	65			
33	1126	33						



a. Model Attitude

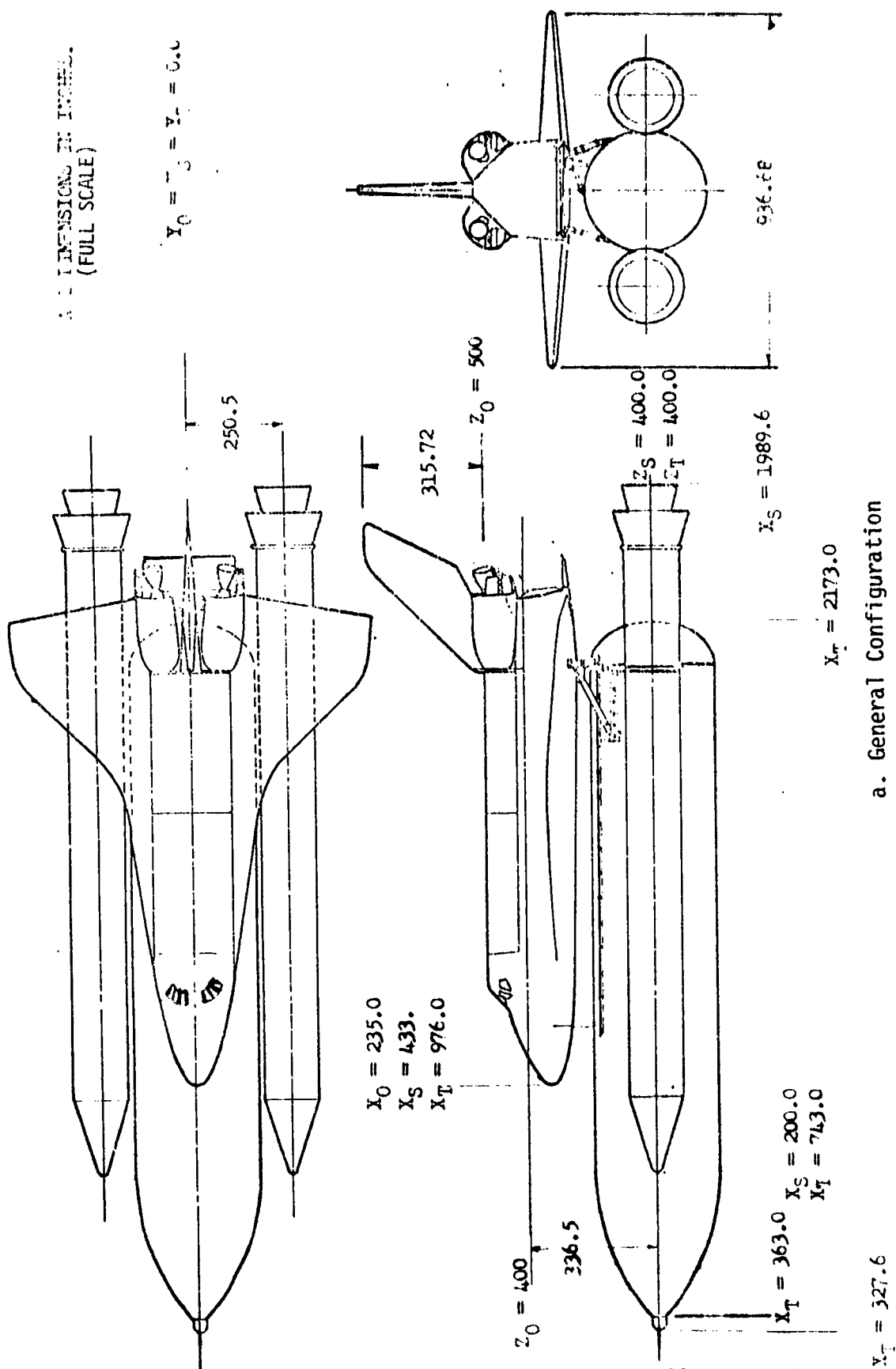
Figure 1. Axis systems.



$L_0 = 1293.300$   
 $L_T = 1845.428$   
 $L_S = 1725.200$   
 $b/2 = 468.34$

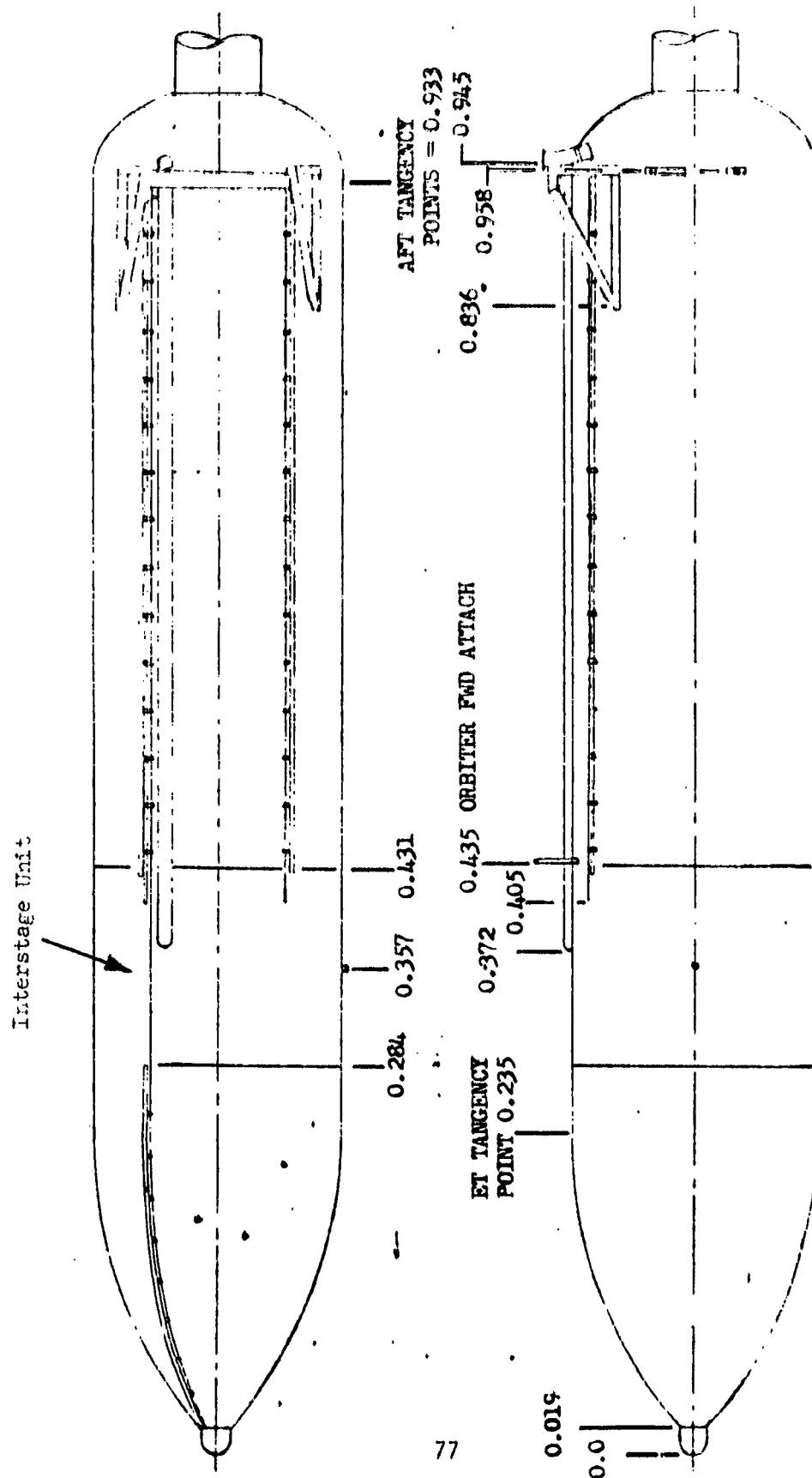
b. Model Coordinates

Figure 1. - Concluded.



a. General Configuration

Figure 2. - Model sketches.

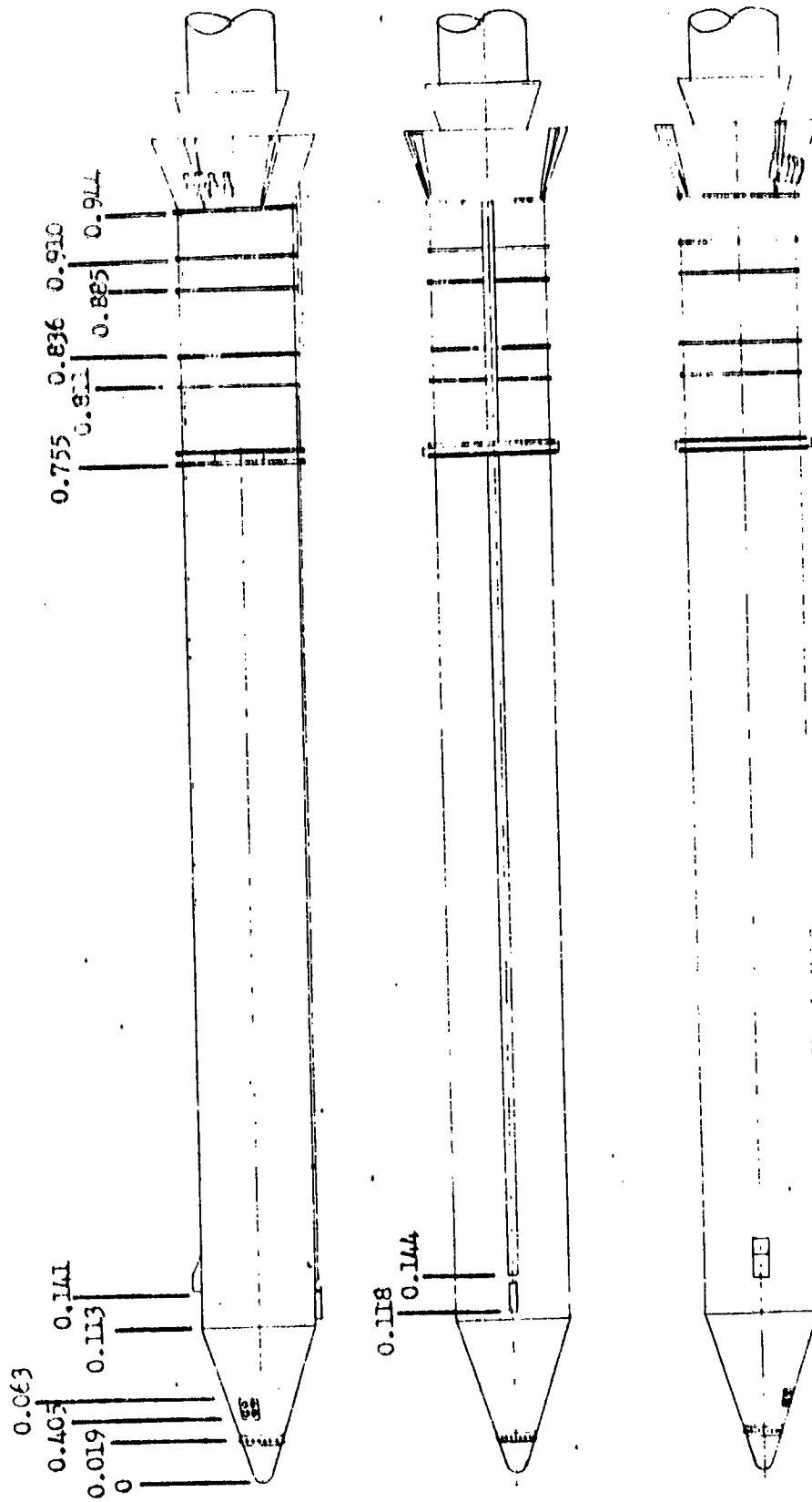


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External Tank  $L_{REP} = 1845.428$  In. F.S. (32.295 In. M.S.)

b. External Tank Protuberance Location

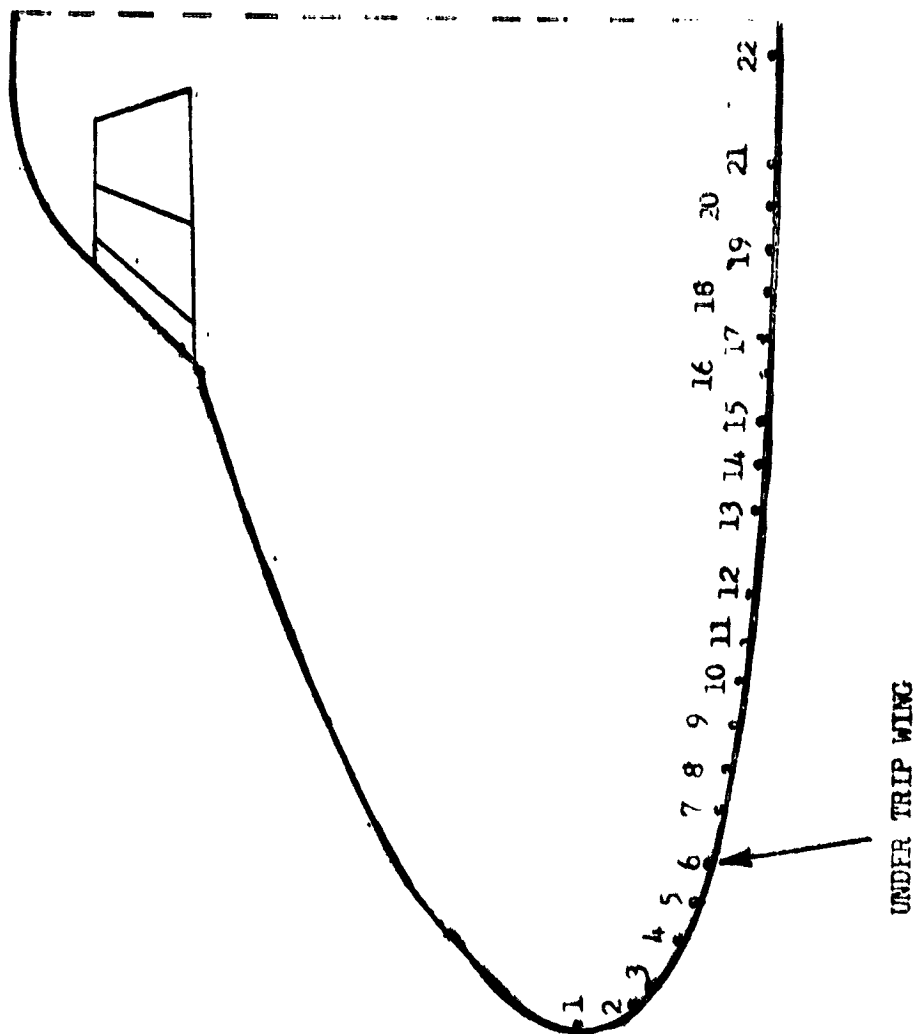
Figure 2. - Continued.



LEB LREF - 1725.20 in. f.s. (30.191 in., M.S.)  
C. SRB Protuberance Locations

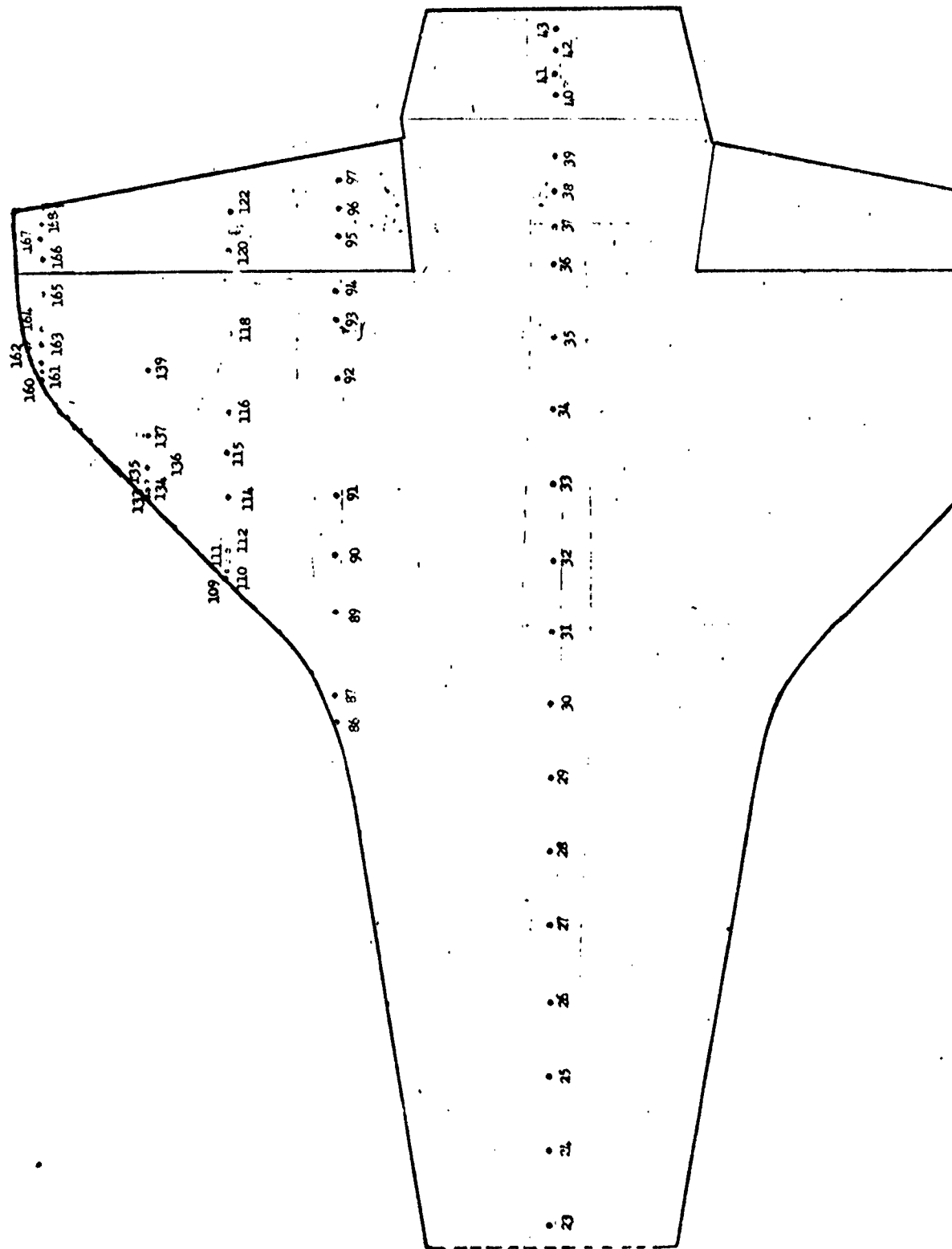
Figure 2. - Continued.





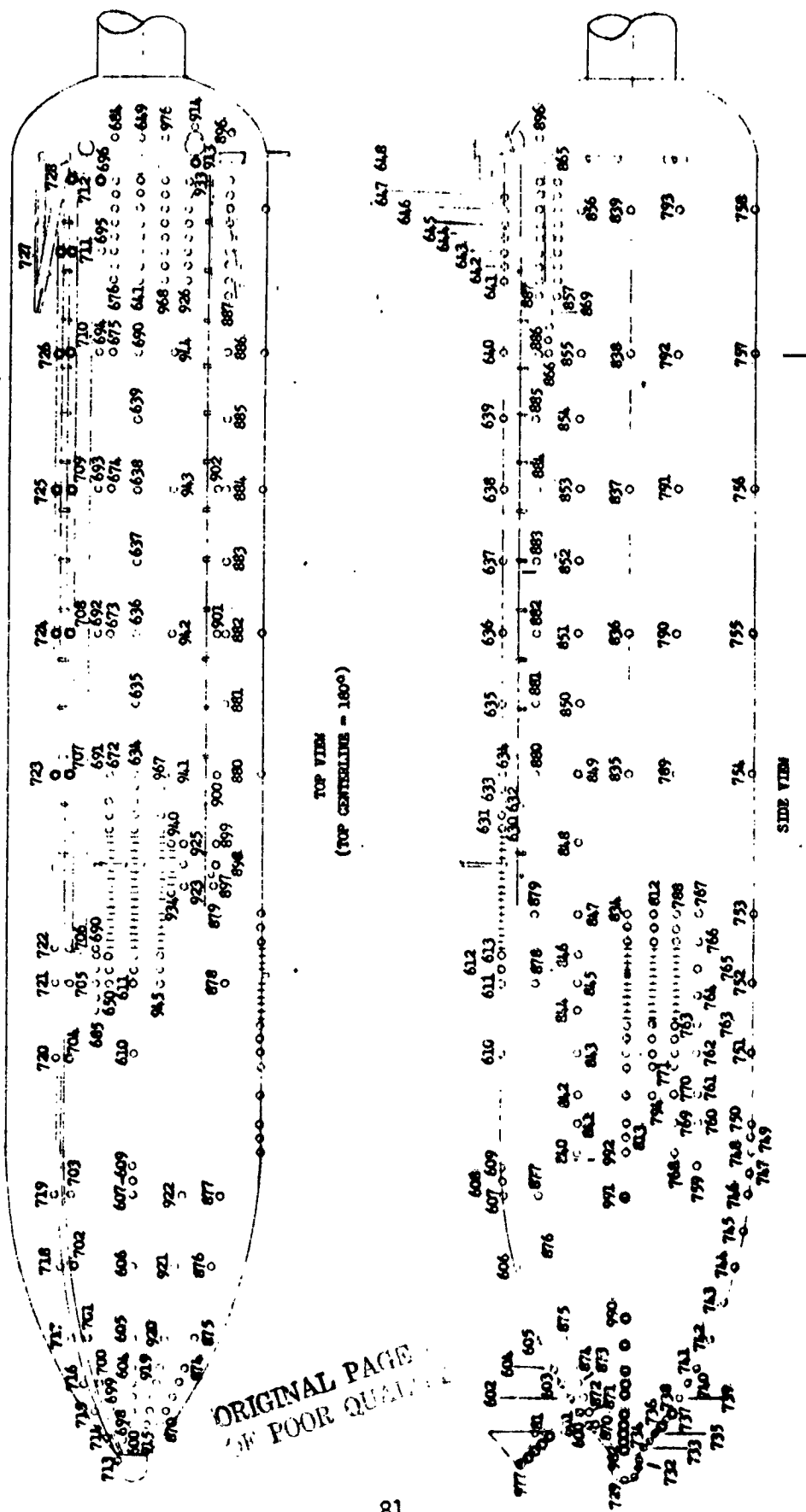
d. Orbiter Nose T/C Locations

Figure 2. - Continued.



e. Orbiter Lower Surface T/C Locations

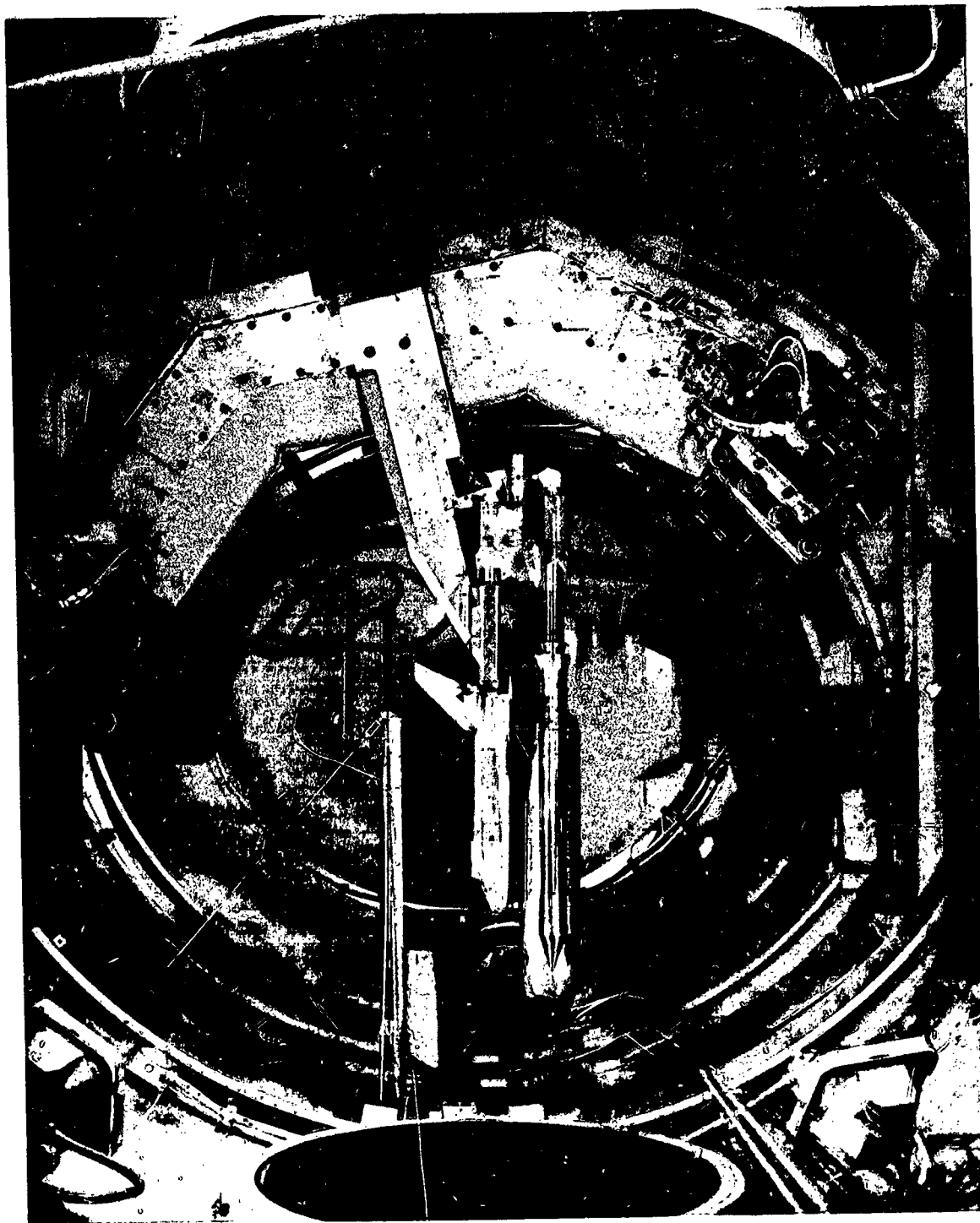
Figure 2. - Continued.



f. External Tank T/C Locations

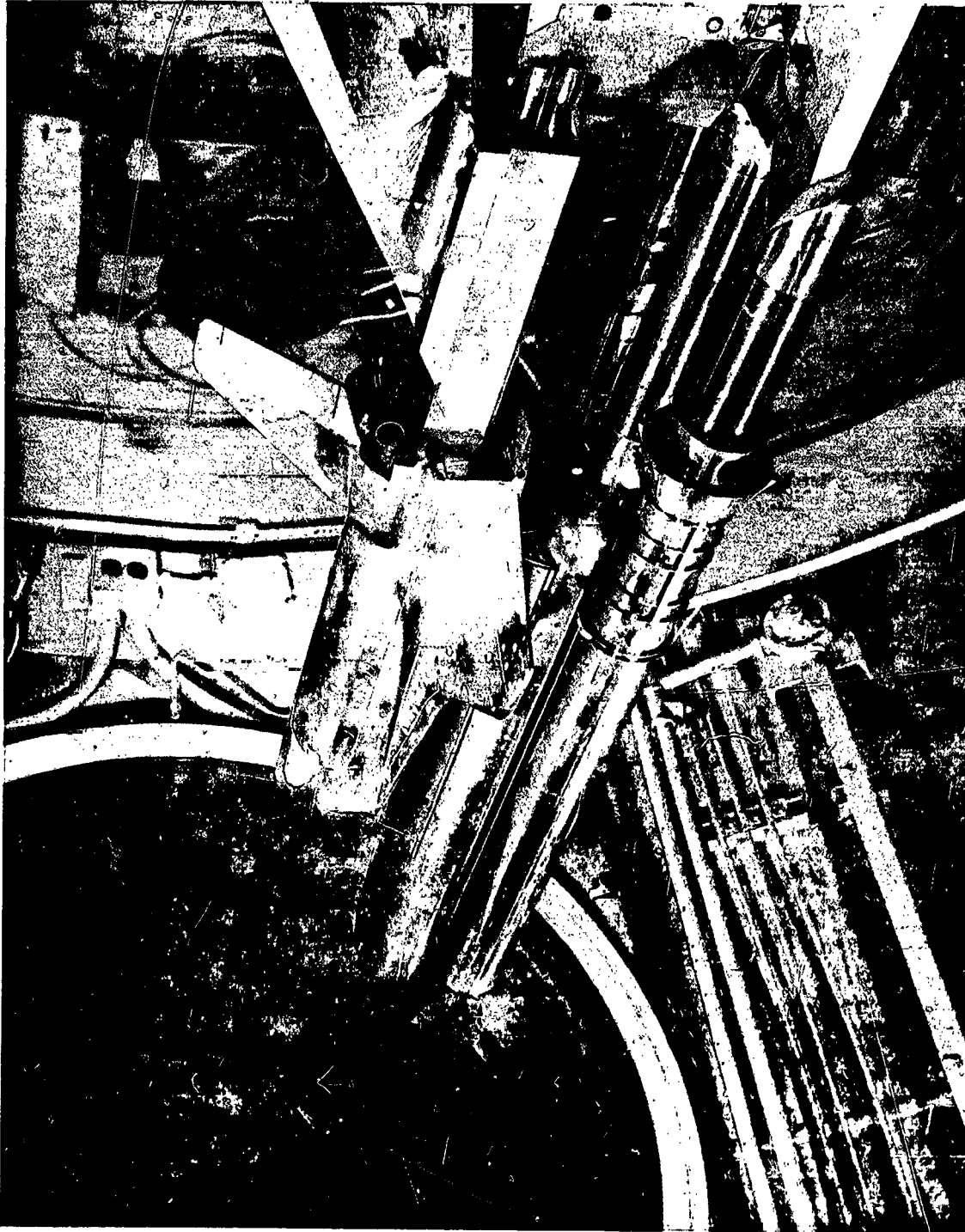
Figure 2. - Continued.





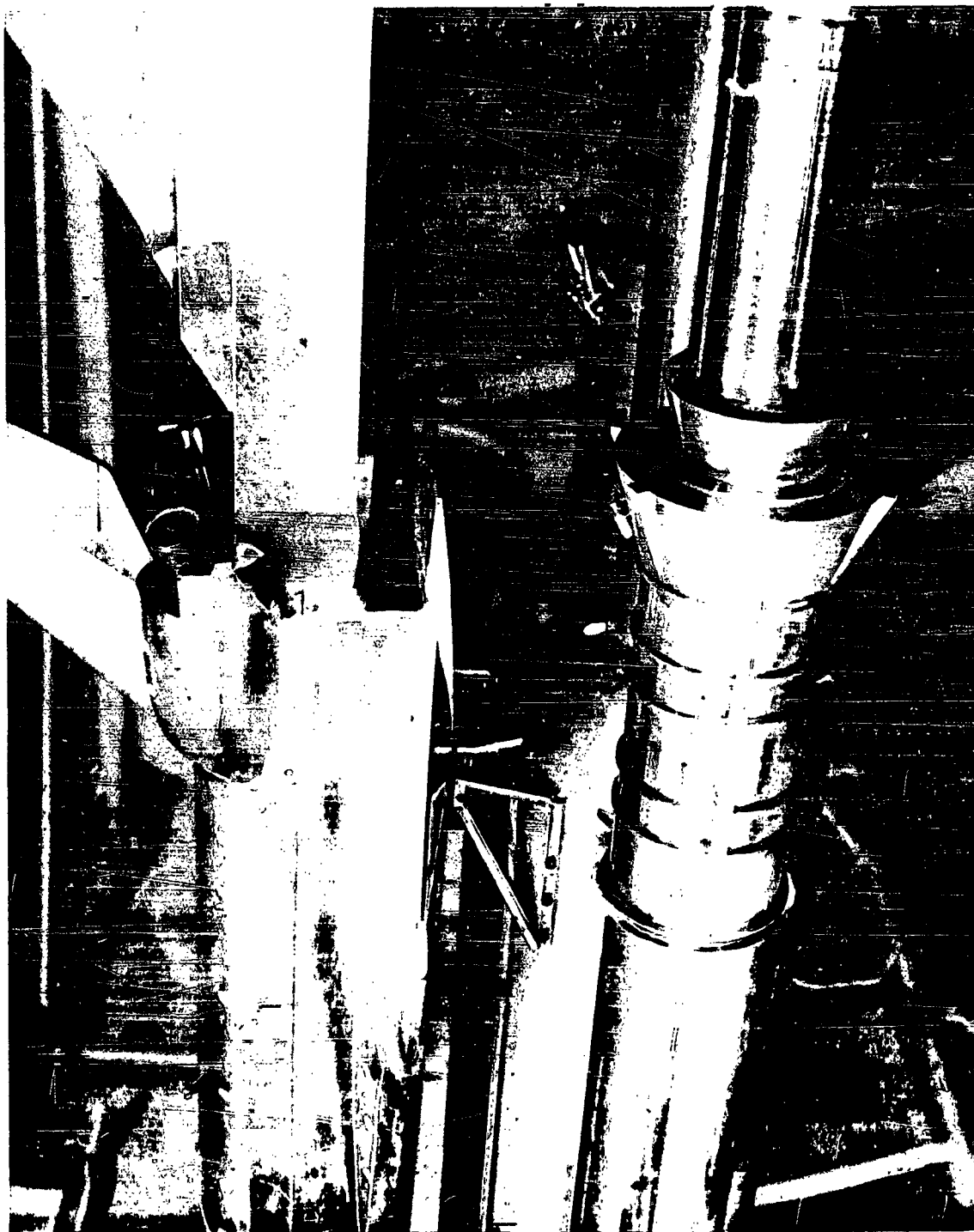
a. Overall Side View of Orbiter, ET, SRB's, Stings, and Tunnel Strut;  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure 3. - Model photographs.



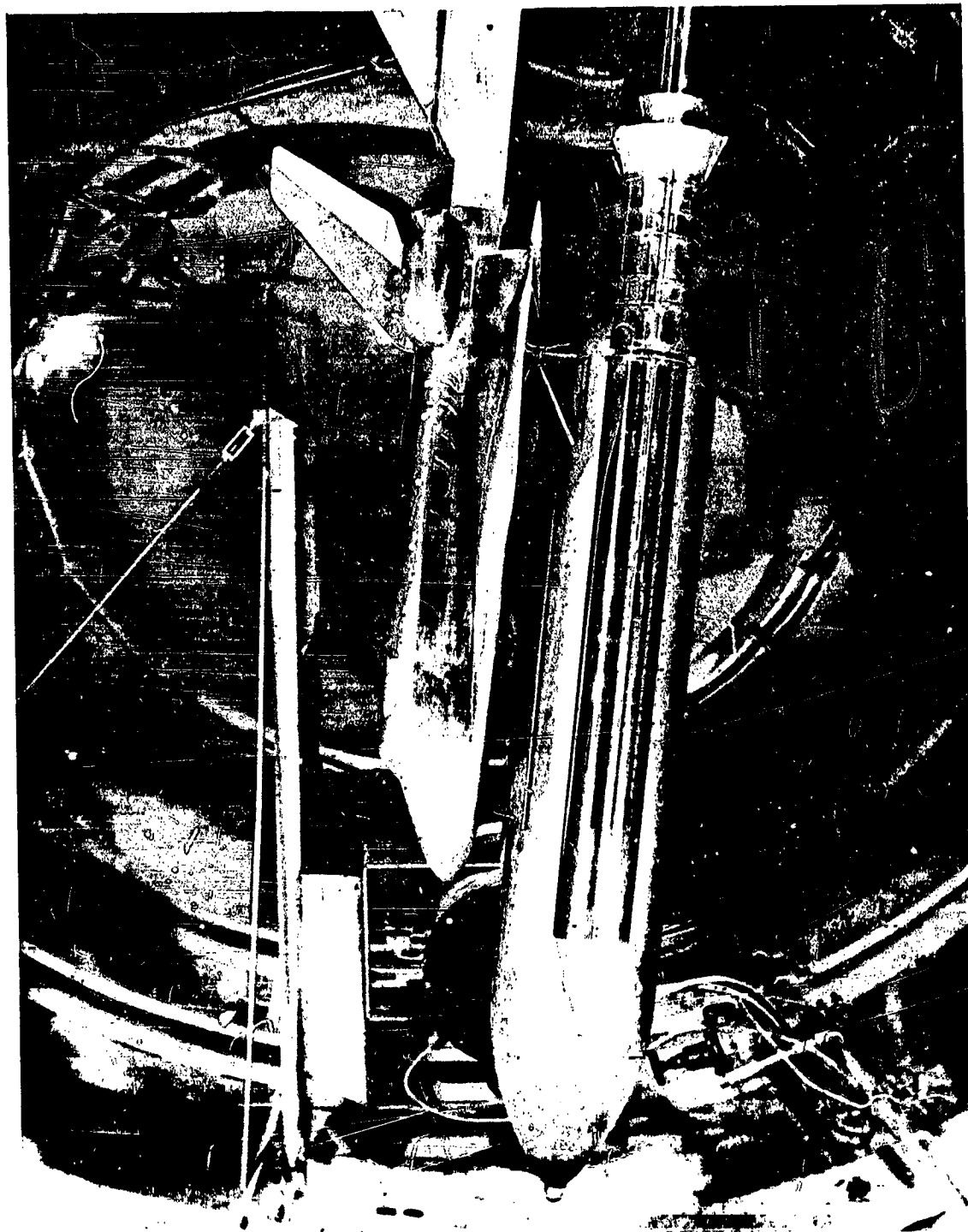
b. 3/4 Rear View of Orbiter, ET, SRB's, and Stings;  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure 3. - Continued.



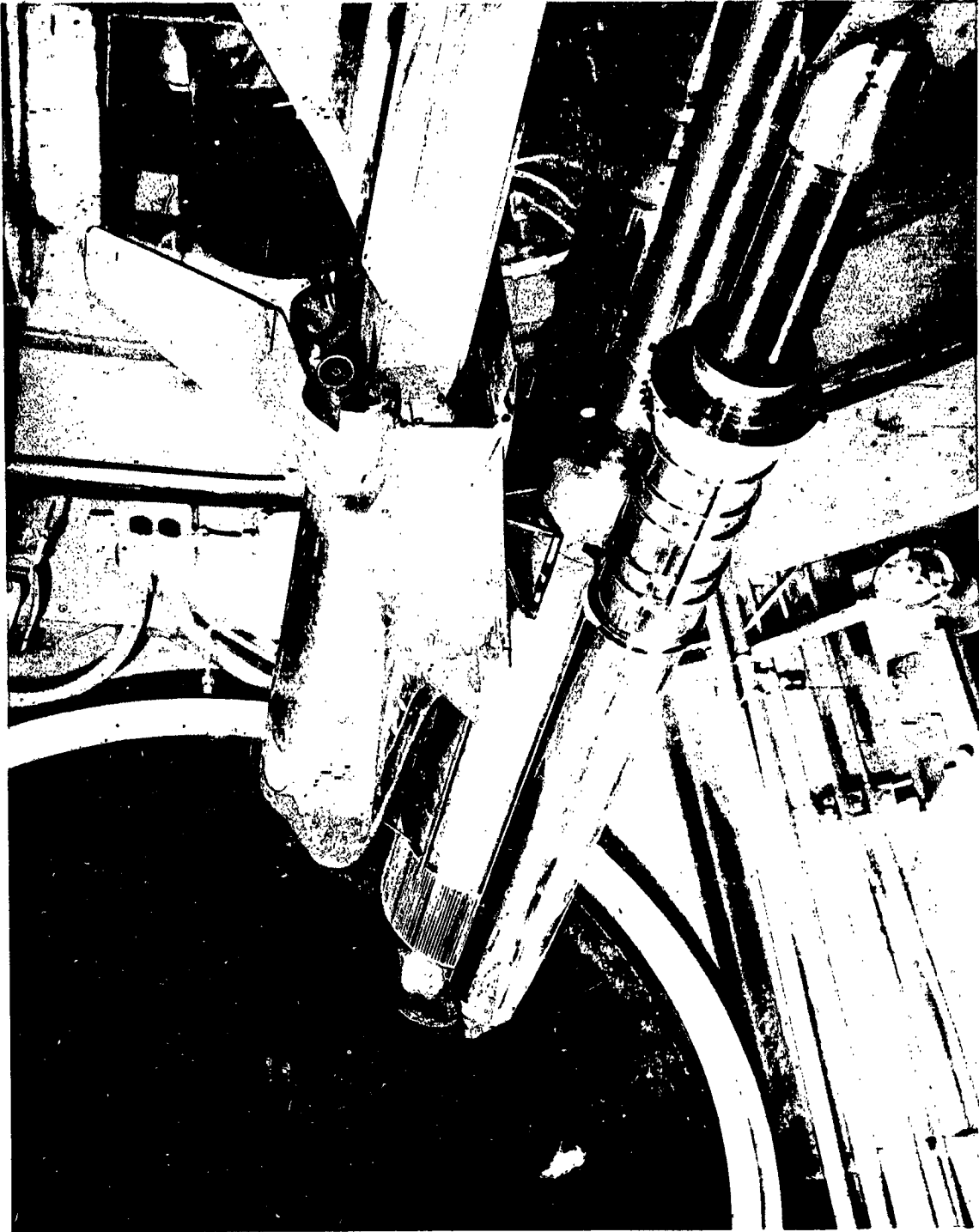
c. Rear Close-Up View of Orbiter, ET, SRB's, and Stings;  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure 3. - Continued.



d. Side Close-Up View of Orbiter, ET, SRB's, and Stings;  $\alpha = 5^\circ$ ,  $\beta = 0^\circ$   
Figure 3. - Continued.





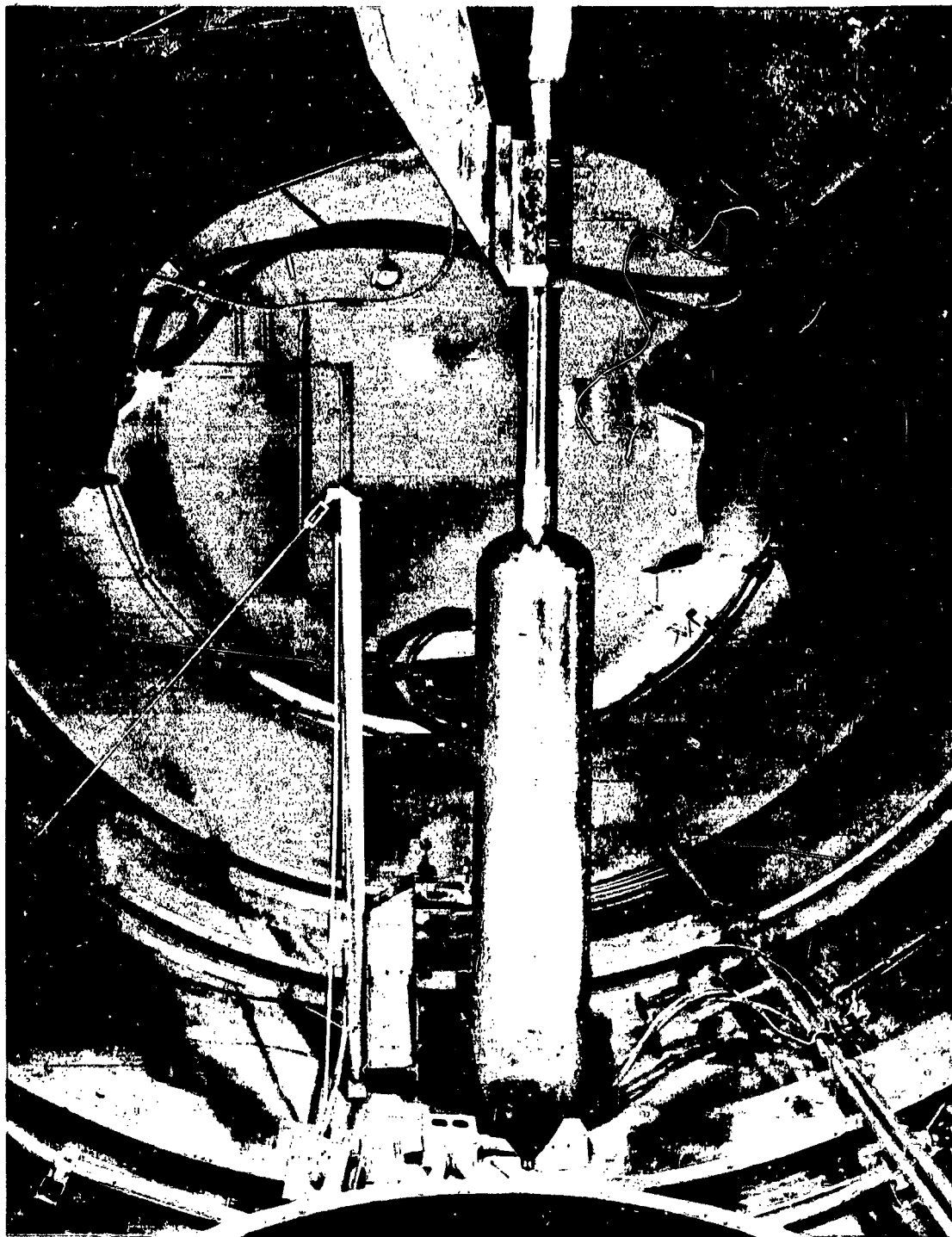
e. 3/4 Rear View of Orbiter, ET With Inter-Tank Structure, SRB's, and Stings;  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure 3. - Continued.



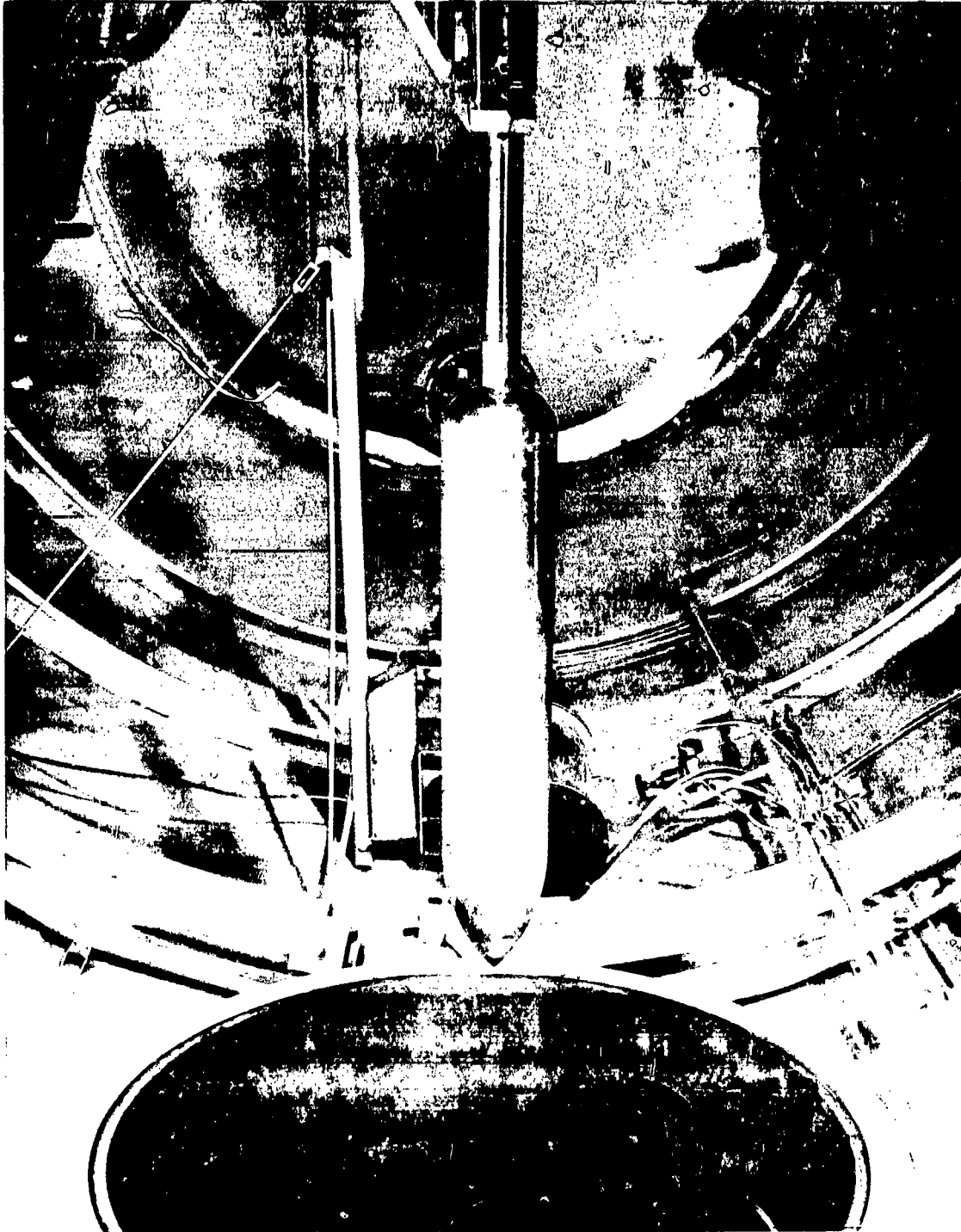
f. 3/4 Rear View of Orbiter, ET, and Stings;  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure 3. - Continued.



g. Side View of ET (Clean With Nipple Nose) and Sting;  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure 3. - Continued.



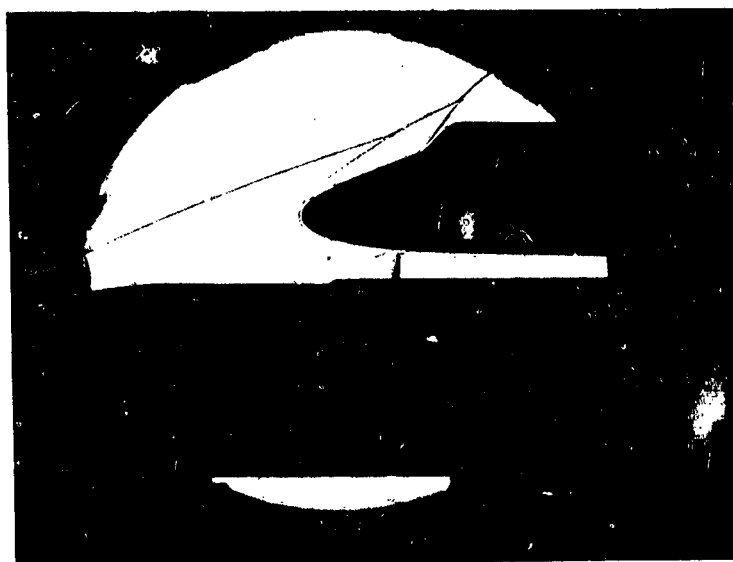
h. Side View of ET (Clean With Ogive Nose) and Sting;  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure - Continued.



i. Shadowgraph of ET; Ogive Nose, Clean, No Trips  $\alpha = 0^\circ$ ,  $\beta = 0^\circ$

Figure 3. - Continued



j. Shadowgraph of OTS;  $\alpha = 0^\circ$   $\beta = 0^\circ$

Figure 3. - Concluded.

DATA

PRECEDING PAGE BLANK NOT FILMED

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA       $R/L$   
 (RNBFO1)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(G+S)      .000      .000      1.500  
 (RNBFO5)      DATA NOT AVAILABLE      .000      .000      1.500  
 (RNBFI6)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

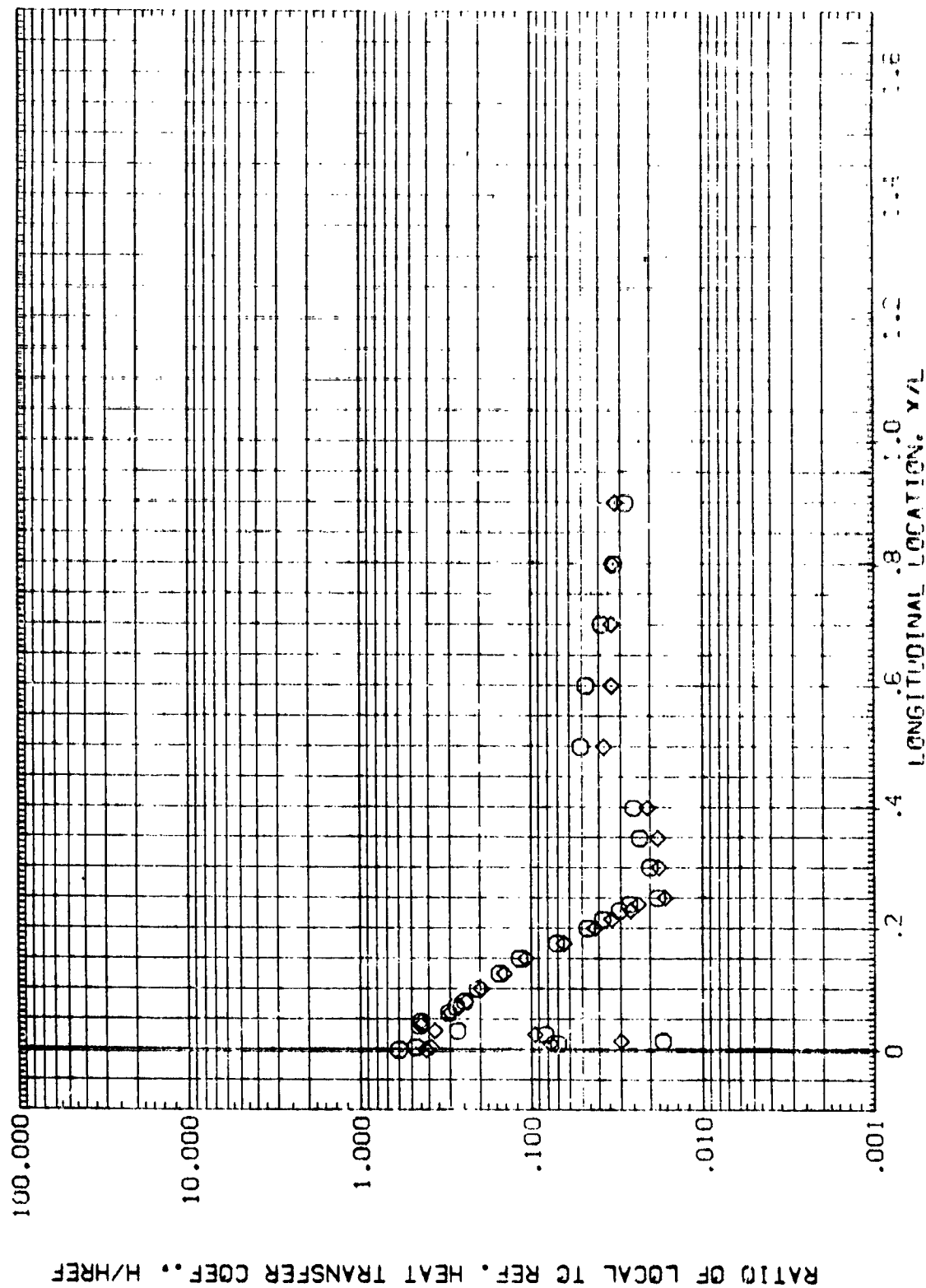


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = .000

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C. 2

DATA SET SYMBOL: (RNBFO1) (RNBFO6) (RNBFI6)  
 CONFIGURATION DESCRIPTION: ARC3.5-211(CH48)OTS/NIPPLE/P/TRIP-0+S) EXT TANK  
 DATA NOT AVAILABLE

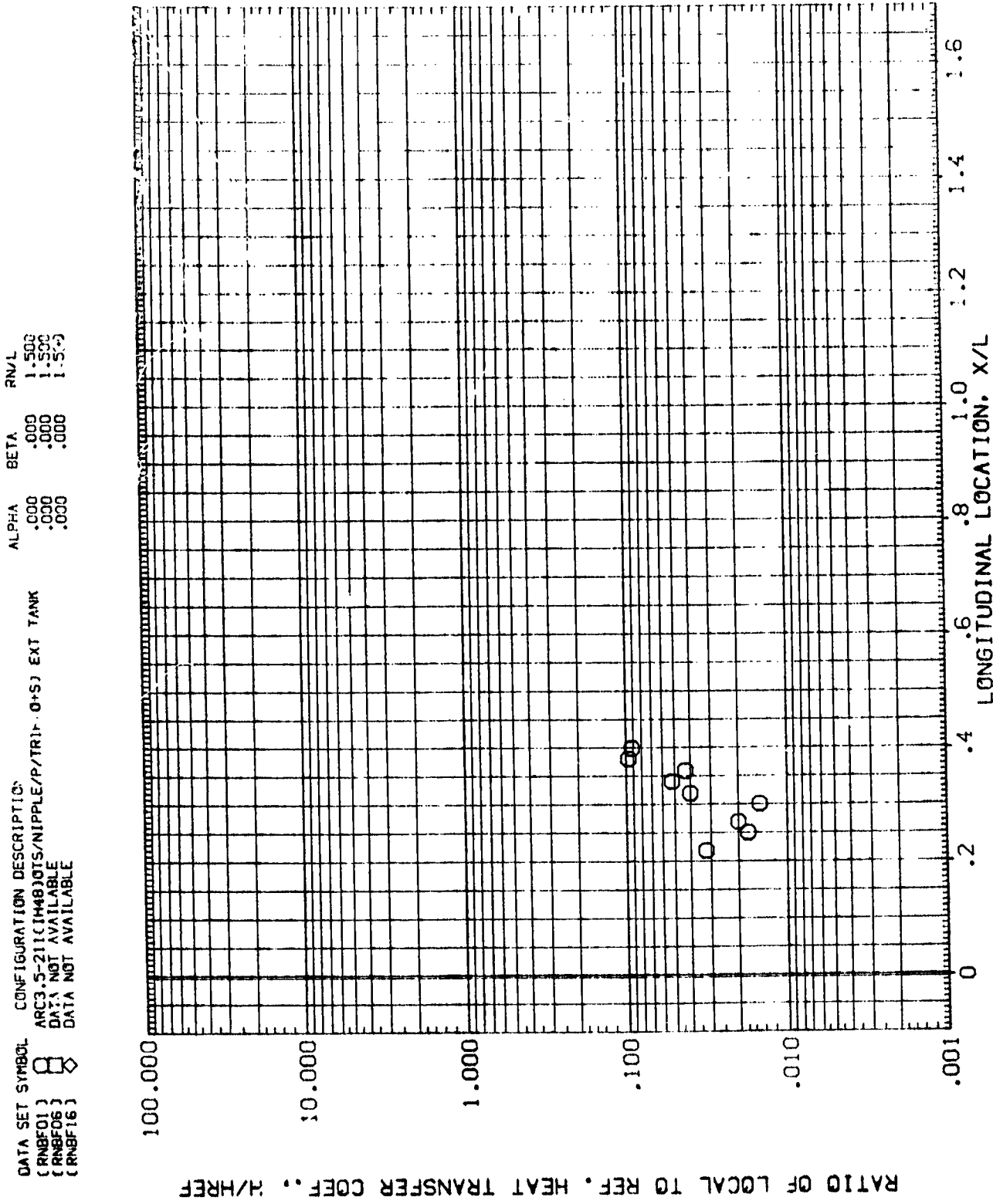





FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RIBF01)  ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
(RIBF06)  DATA NOT AVAILABLE  
(RIBF16)  ARC3.5-211(IH48)JET /NIPPLE/CLEAN

ALPHA BETA RM/L  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 1.500

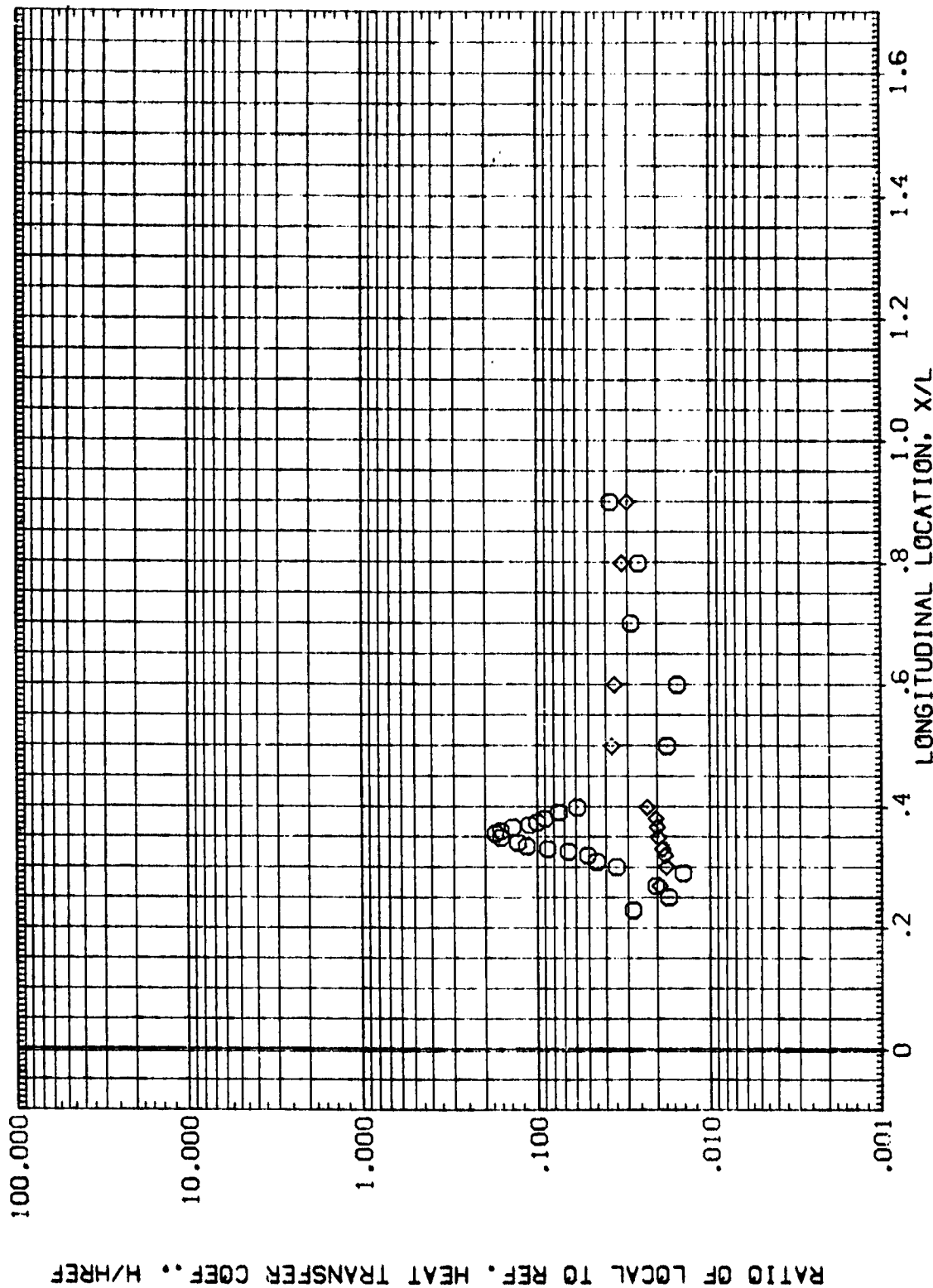


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO1)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      1.500

(RNBFO6)      DATA NOT AVAILABLE      .000      .000      1.500

(RNBFI6)      DATA NOT AVAILABLE

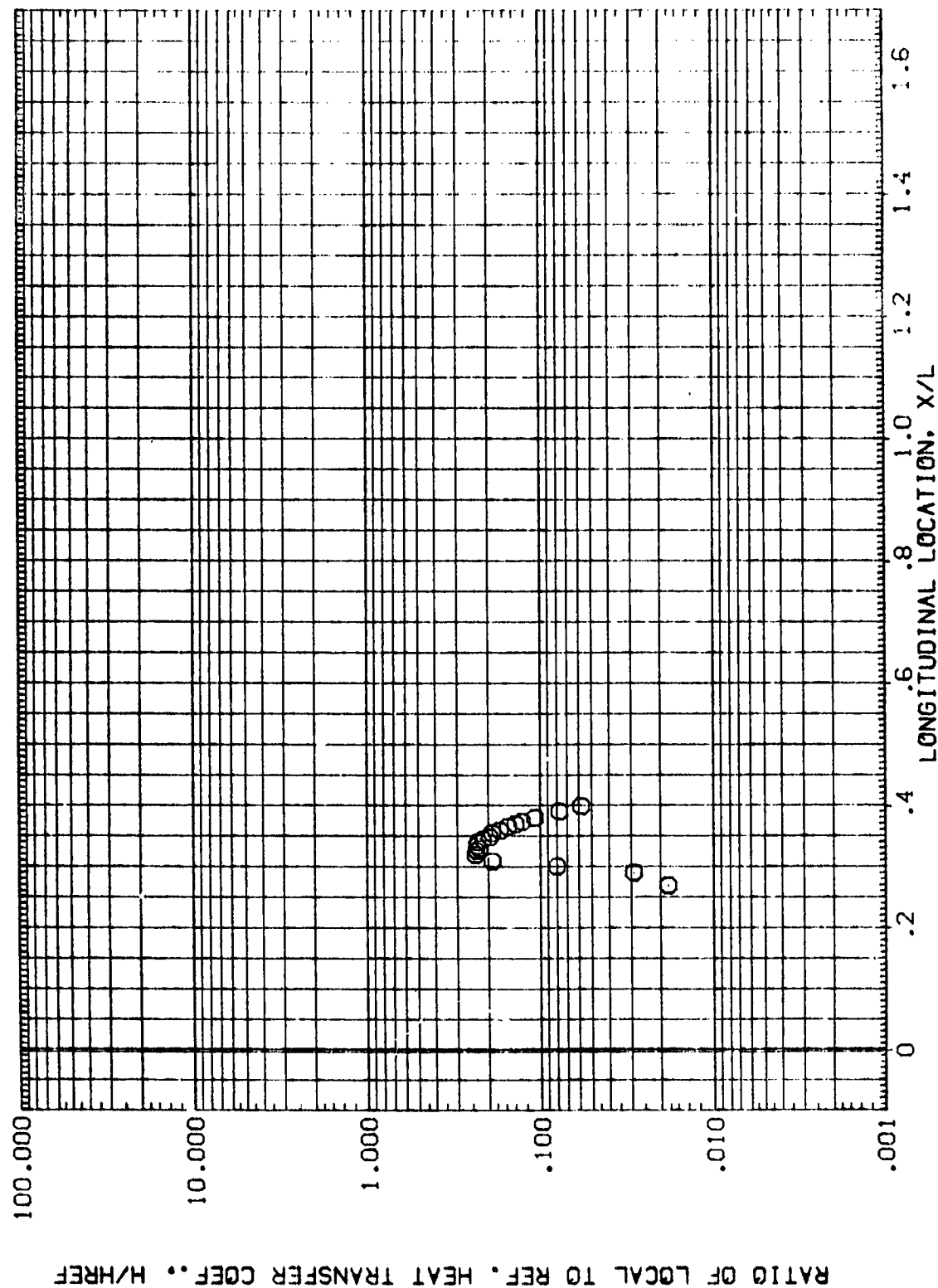


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L

(RNB-01)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    .000    .000    1.500

(RNB-06)    DATA NOT AVAILABLE    .000    .000    1.500

(RNB-16)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN    .000    .000    1.500

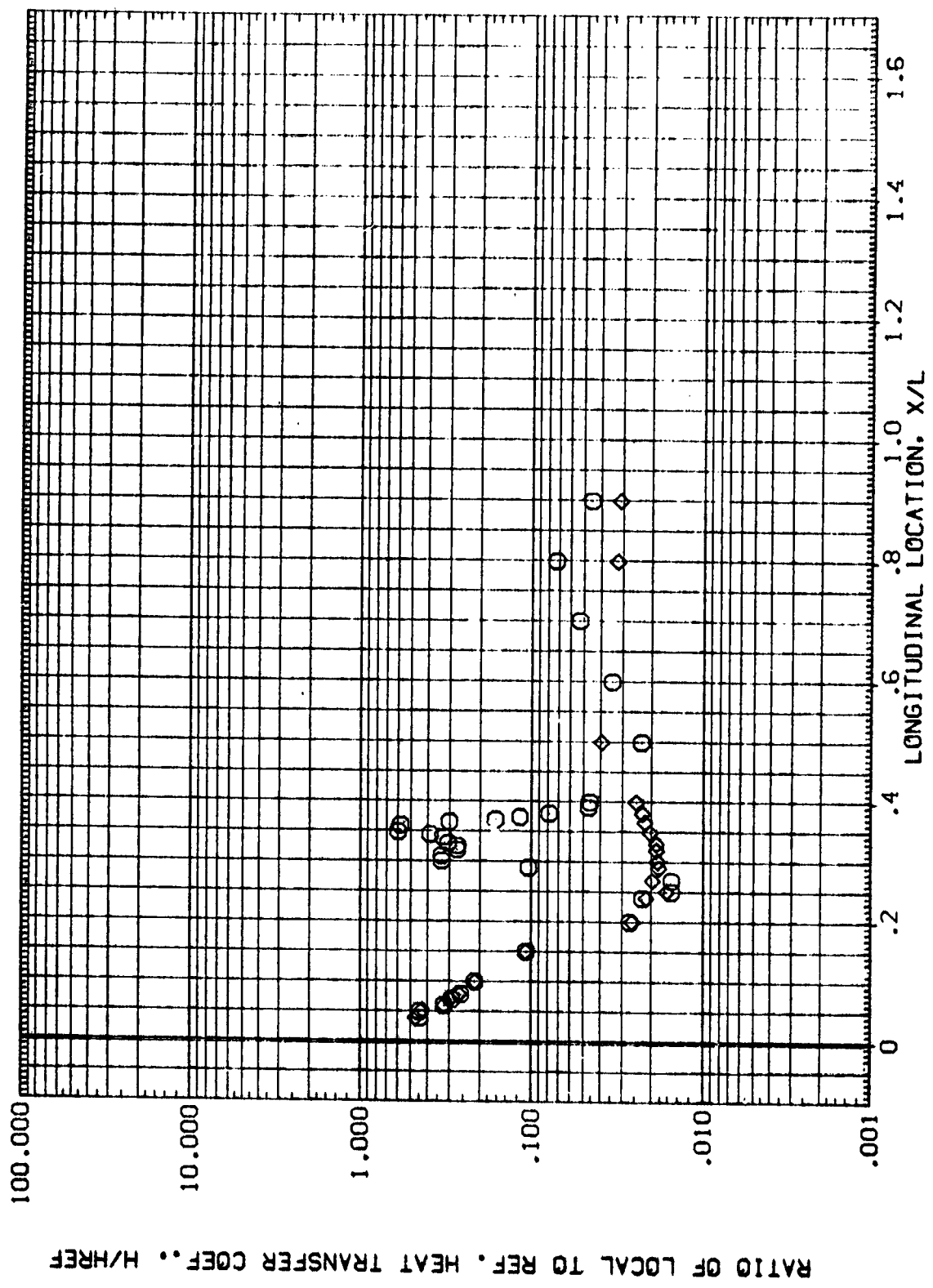


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO1)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      1.500

(RNBFO6)      DATA NOT AVAILABLE      .000      .000      1.500

(RNBFI6)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

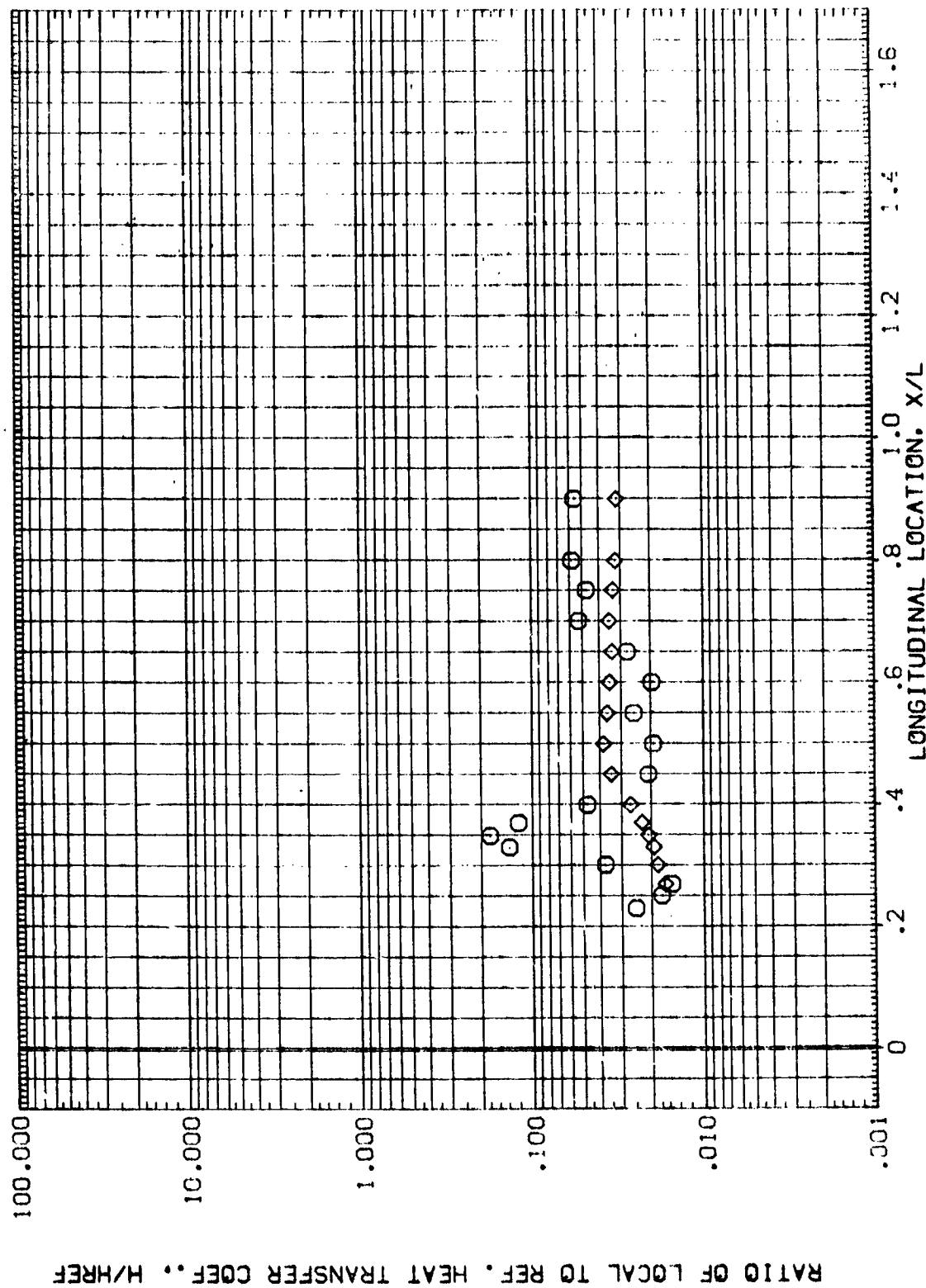


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 112.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(RNB01)    ARC3-5-211(CH48)OTS/NIPPLE/P/TRIP(0.5) EXT TANK    .000    .000    1.500

(RNB06)    DATA NOT AVAILABLE    .000    .000    1.500

(RNB16)    DATA NOT AVAILABLE    .000    .000    1.500

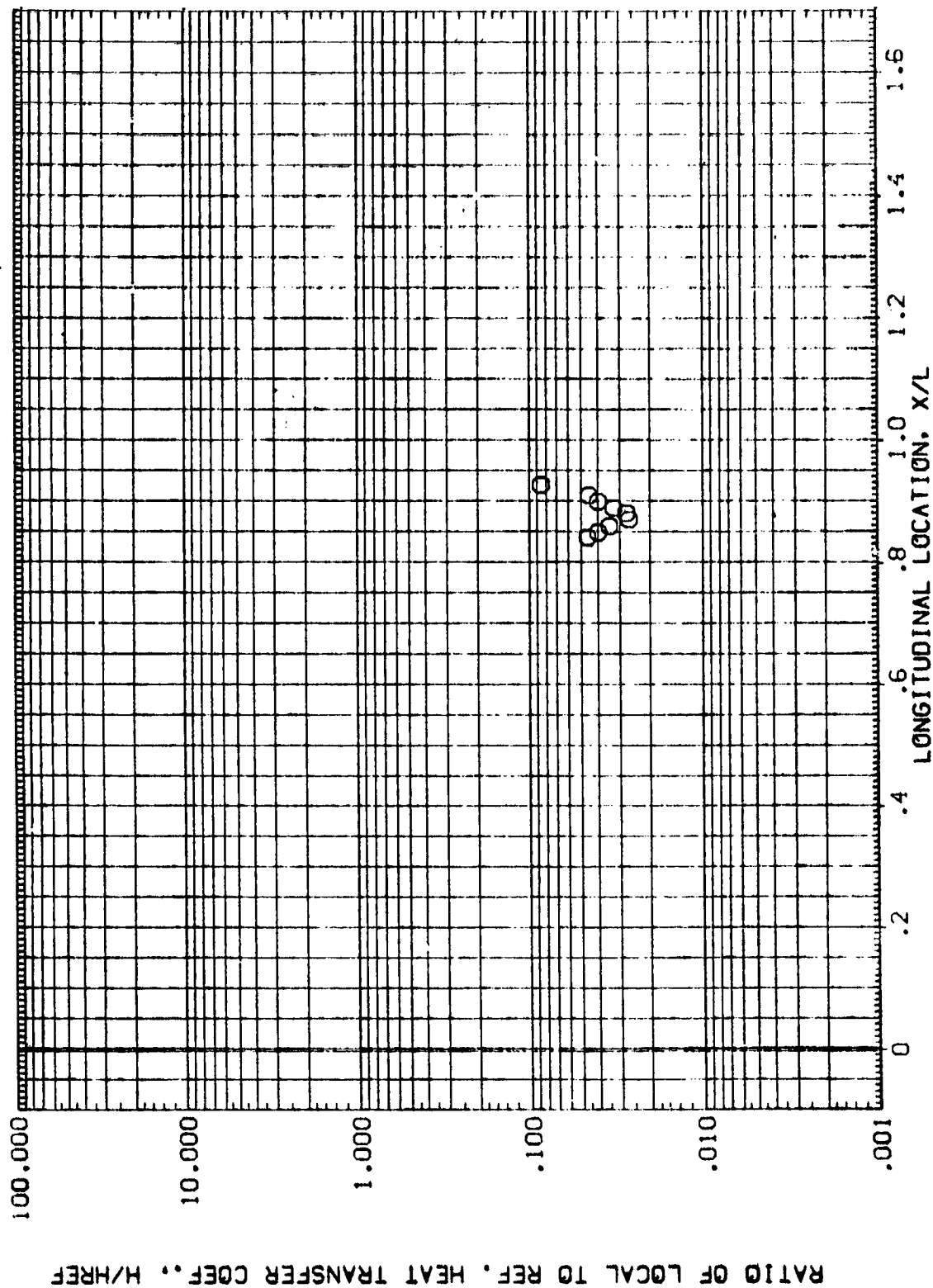


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFC1) ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFC6) DATA NOT AVAILABLE  
 (RNBFC16) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 1.500

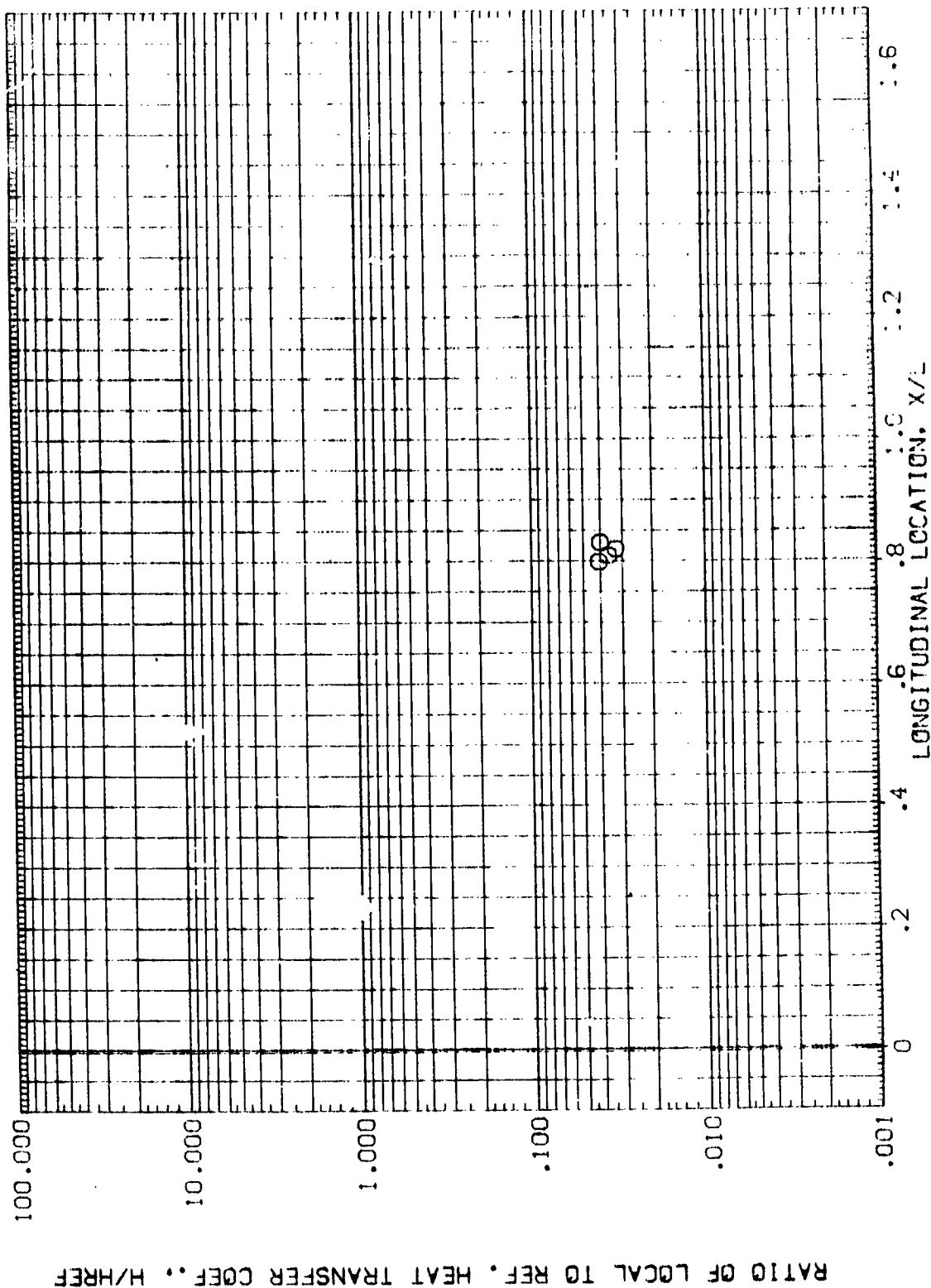


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(R9F01)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK      .000      .000      1.500

(R9F06)      DATA NOT AVAILABLE      .000      .000      1.500

(R9F16)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

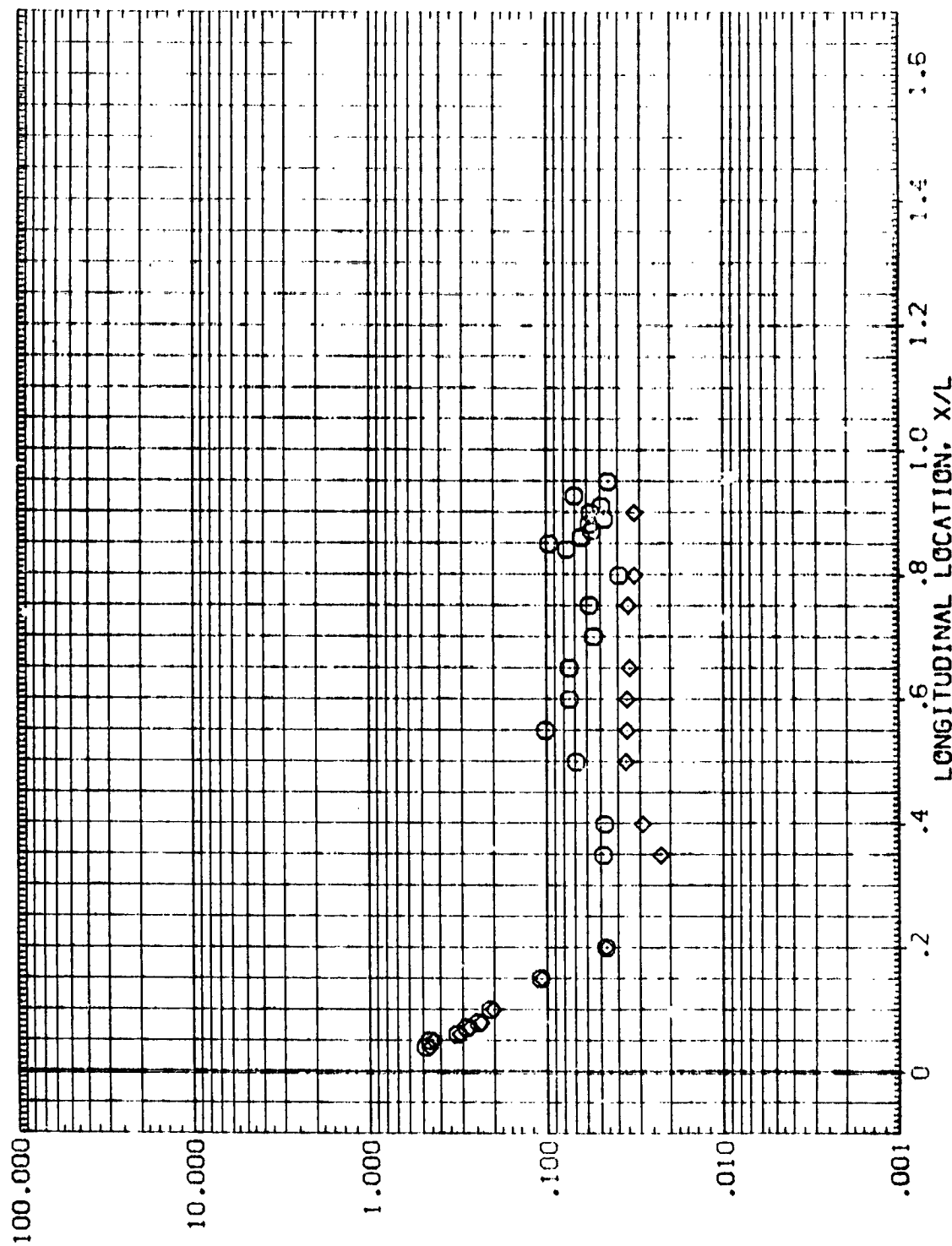


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNB01)    ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(O-S) EXT TANK  
 (RNB06)    DATA NOT AVAILABLE  
 (RNB16)    DATA NOT AVAILABLE

ALPHA    BETA    R<sub>N/L</sub>  
 .000    .000    1.500  
 .000    .000    1.500  
 .000    .000    1.500

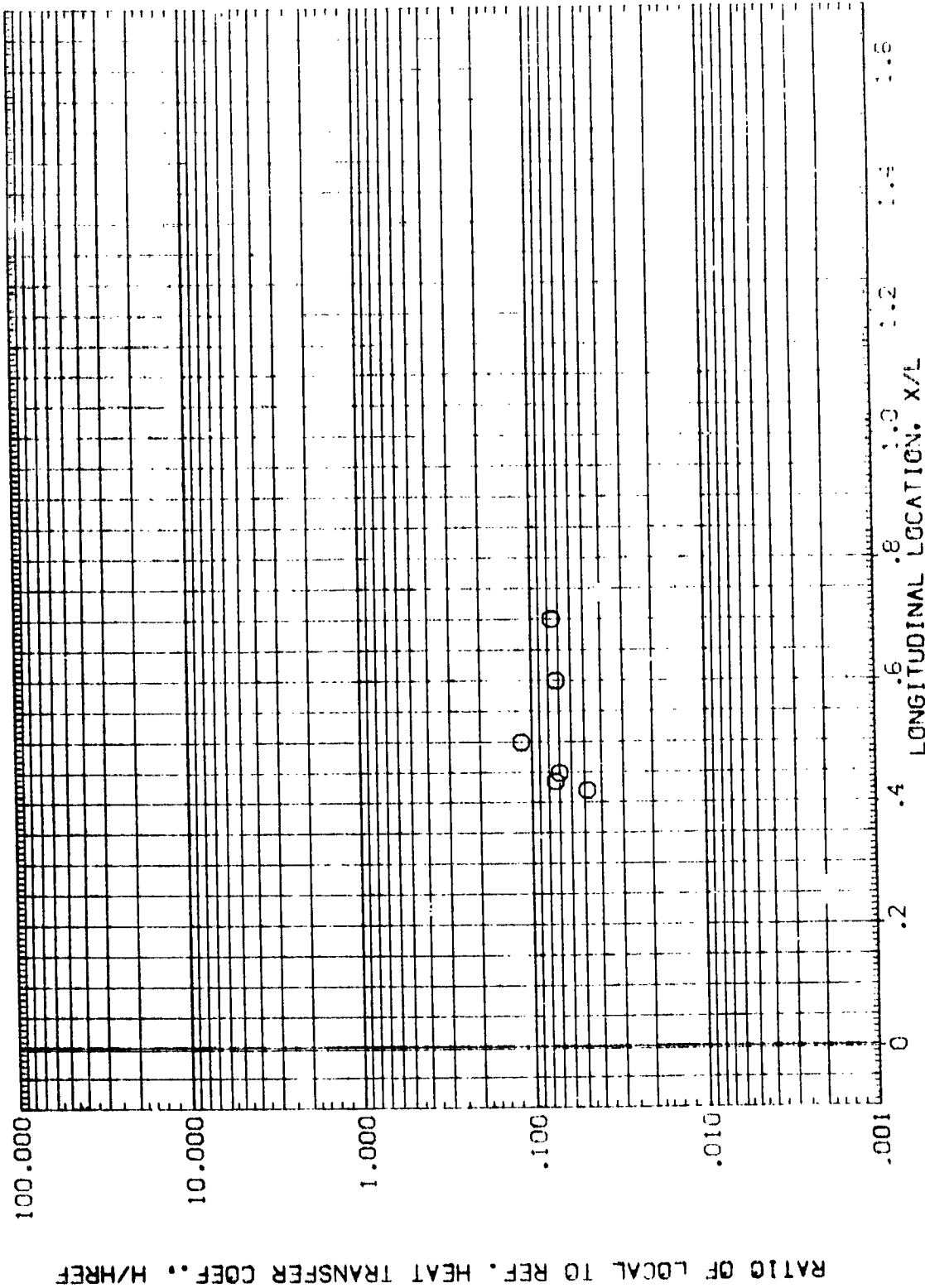


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 142.300



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO1)  
(RNBFO2)  
(RNBFO3)

ARC3-5-211(IH48JOTS/NIPPLE/P/TRIP(0+S) EXT TANK  
DATA NOT AVAILABLE  
DATA NOT AVAILABLE

ALPHA BETA RV/L  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 1.500

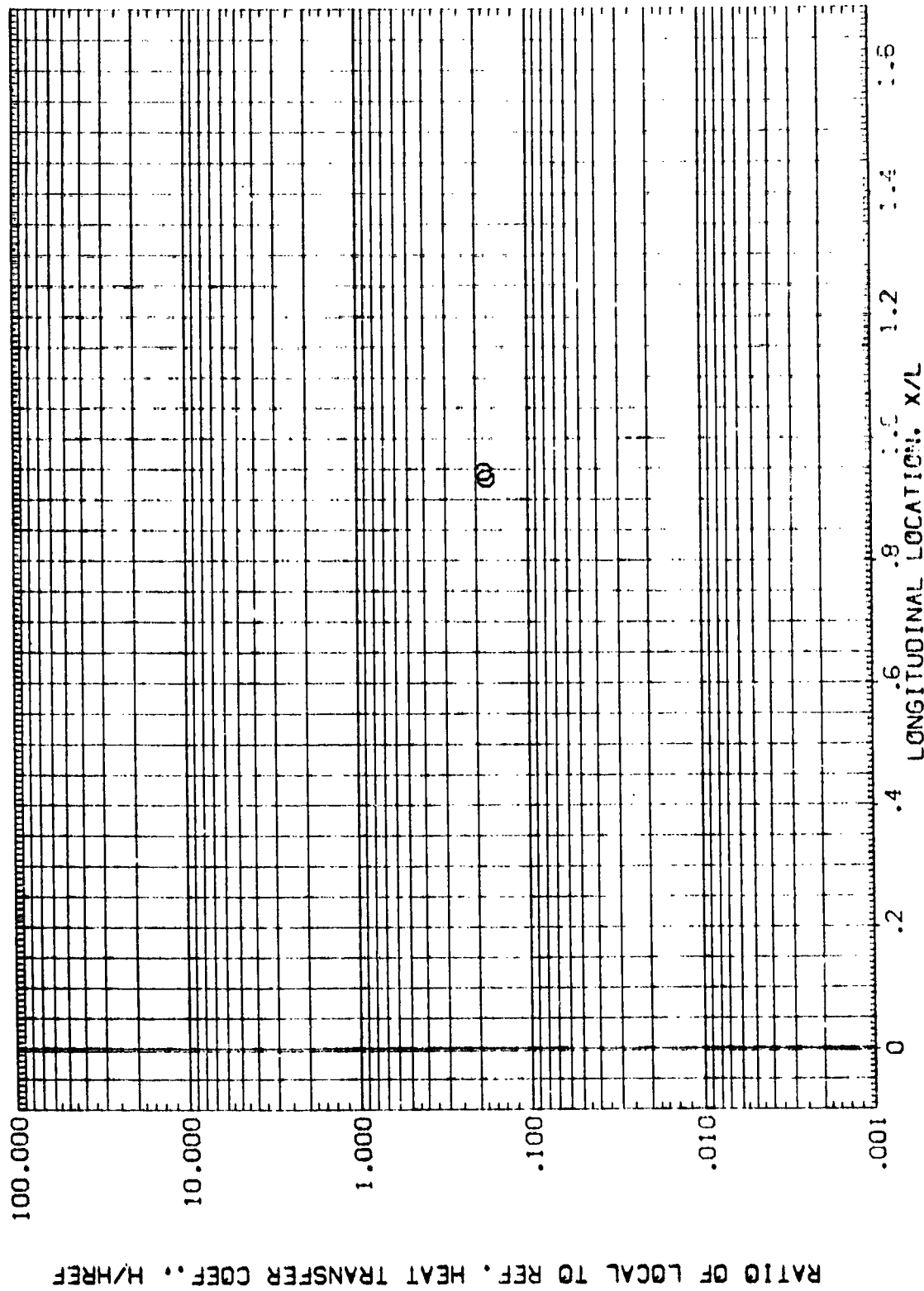


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB01) ARC3-5-211(I48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNB06) DATA NOT AVAILABLE  
 (RNB16) DATA NOT AVAILABLE

ALPHA BETA  $\gamma/L$   
 .000 .000 .500  
 .000 .000 .500  
 .000 .000 .500

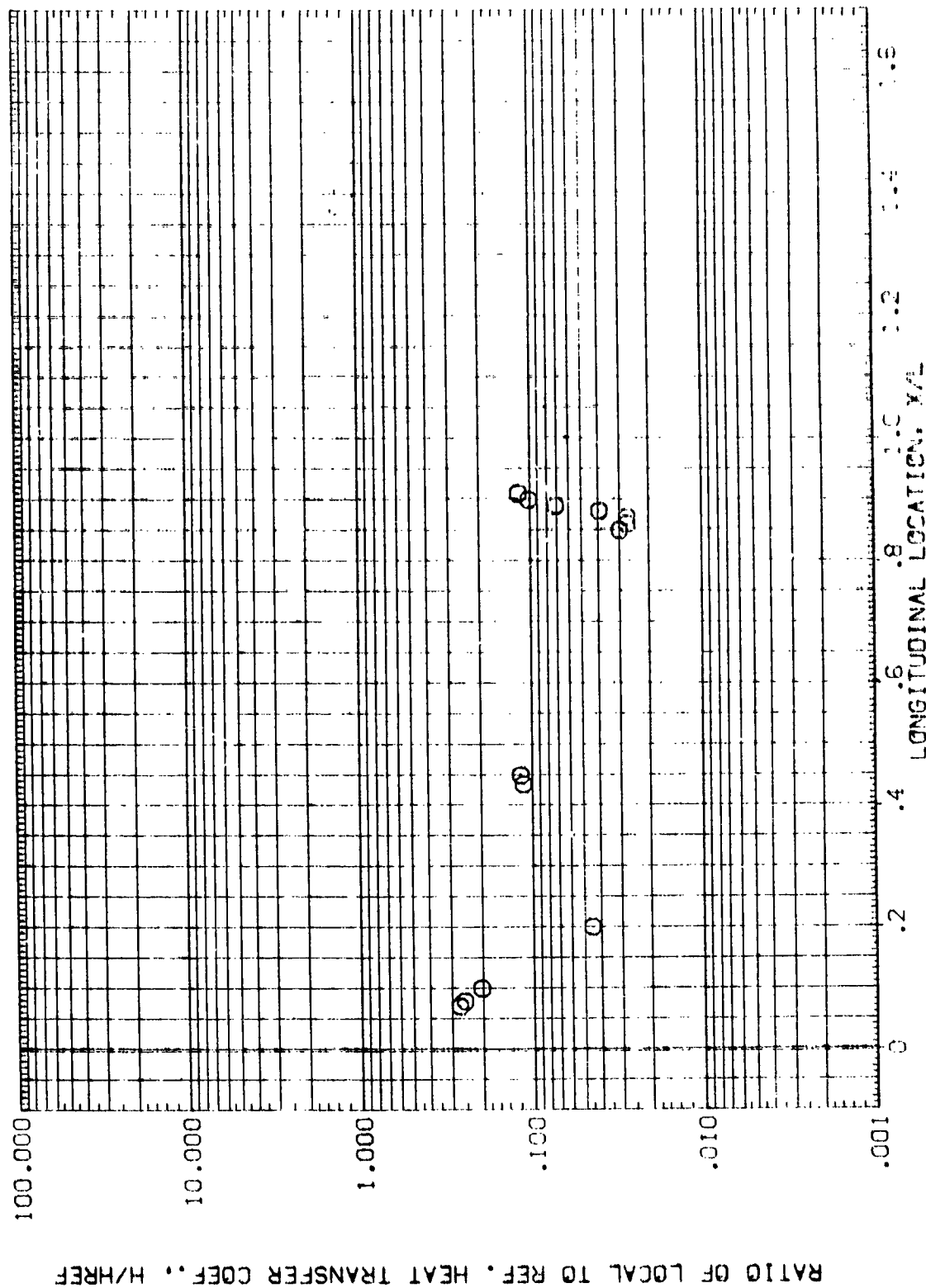


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900  $\beta$ -I = 157.500 PAGE 12

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO1) ARC3-5-211C1H48JOTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFO6) DATA NOT AVAILABLE  
 (RNBFI6) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 1.500

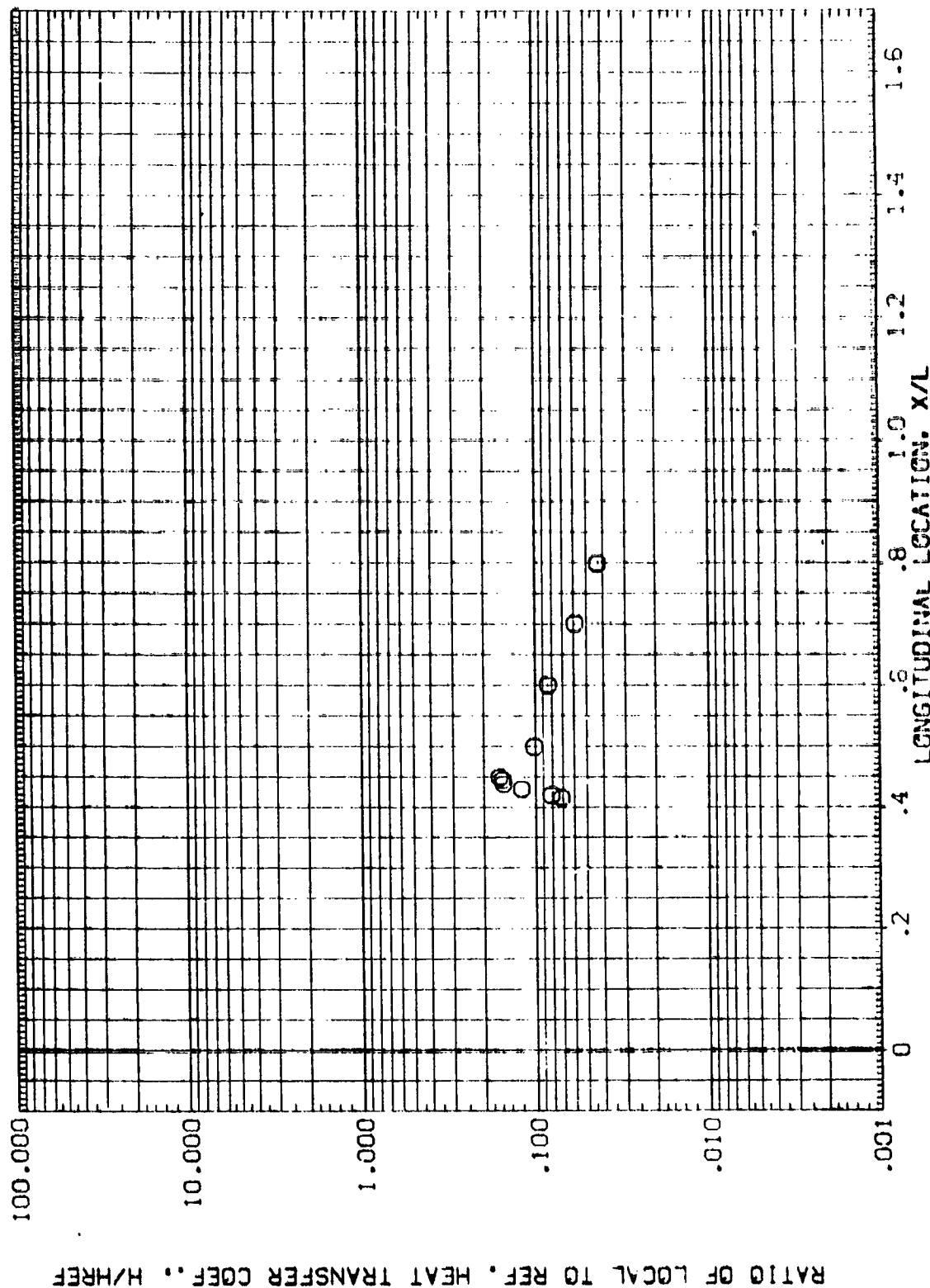


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.120

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R1BFC01)	ARC3.5-211C1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TASK
(R1BFC06)	DATA NOT AVAILABLE
(R1BFC16)	DATA NOT AVAILABLE

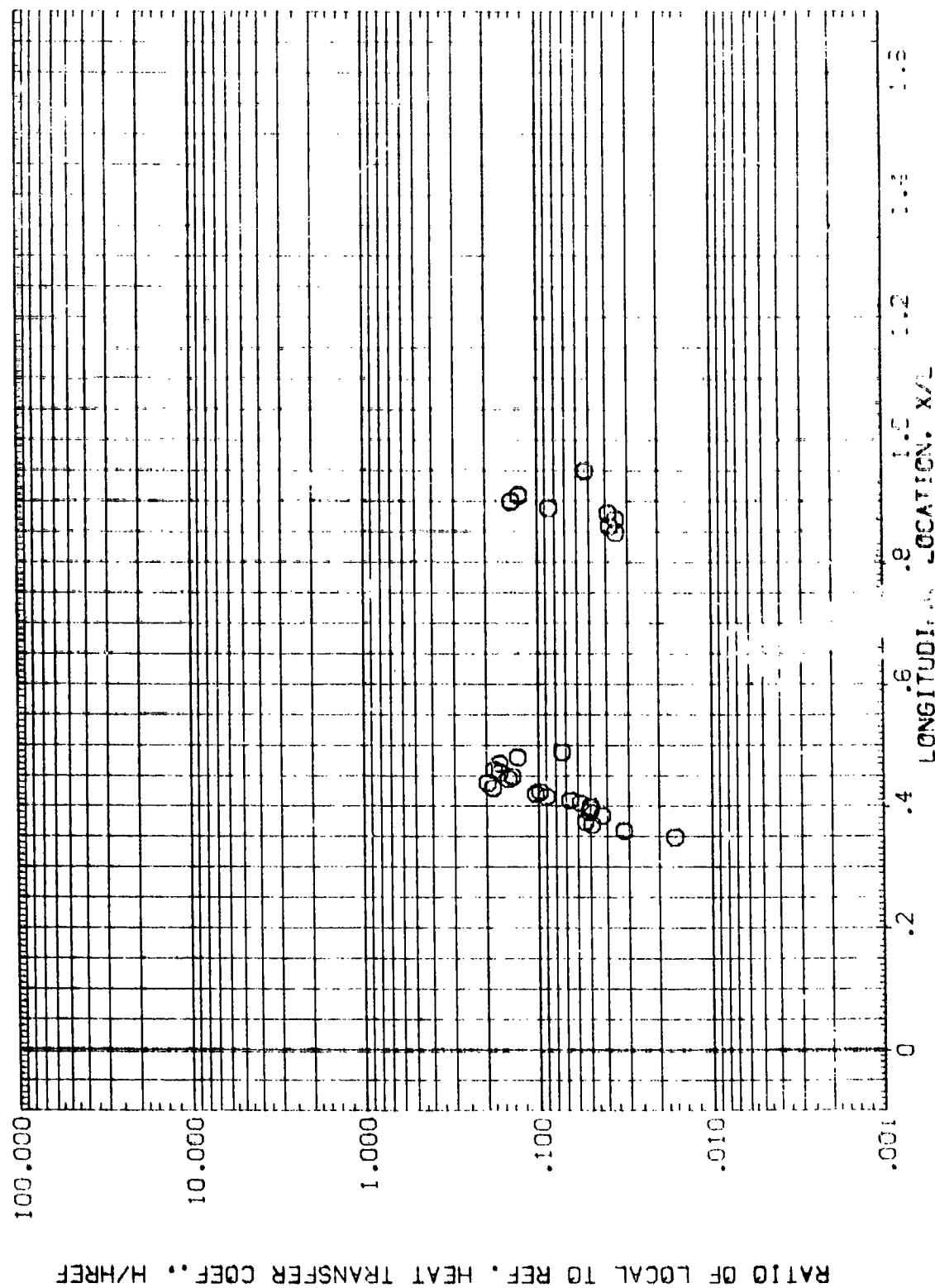


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

$$\text{MACH} = 5.300 \quad \text{HAW/HT} = .900 \quad \text{P-T} = 1.000$$

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO1)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      1.500

(RNBFO6)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      1.500

(RNBFI6)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

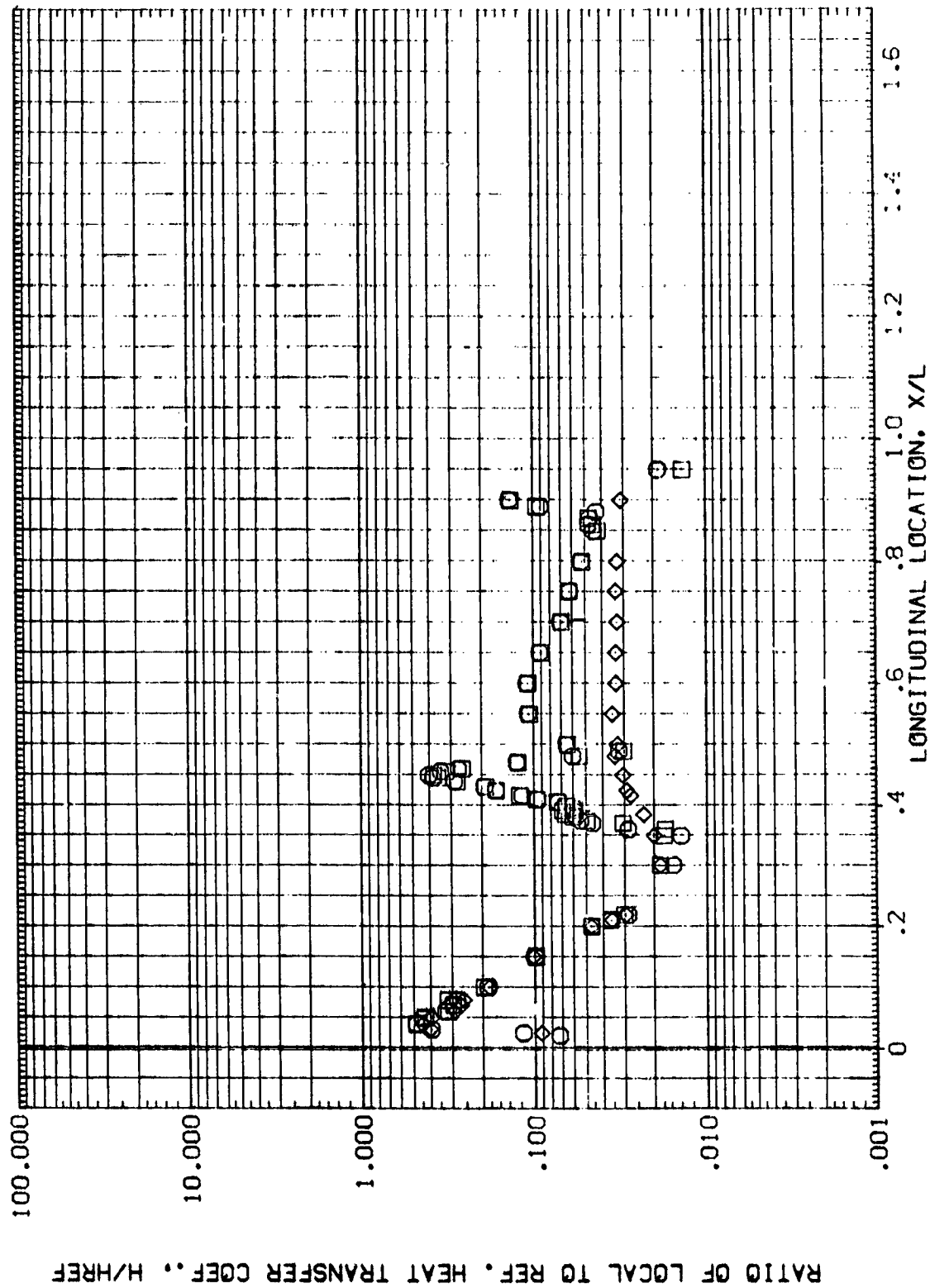


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 180.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RHBFO1)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      1.500  
 (RHBFO6)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      1.500  
 (RHBFI6)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

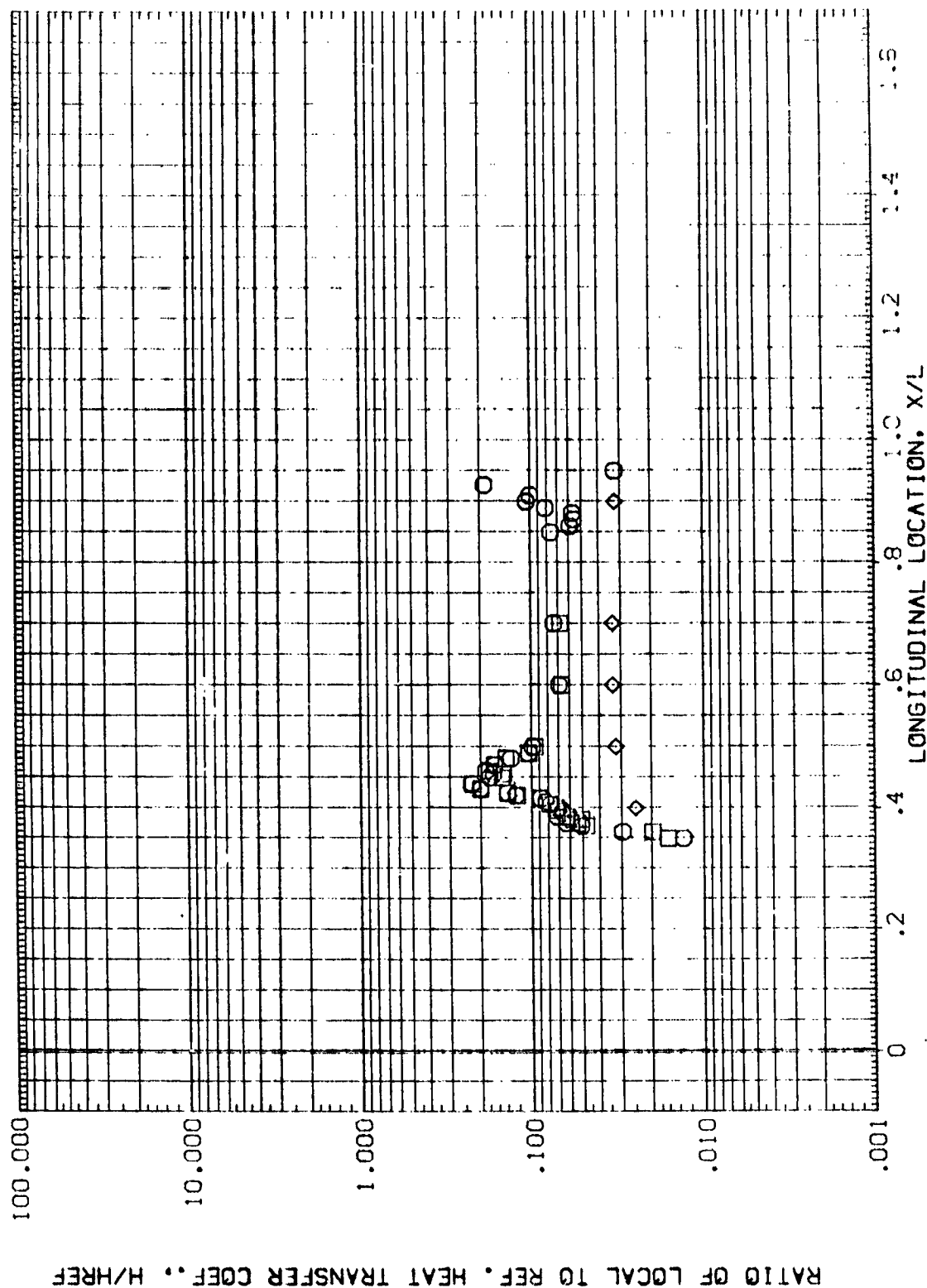


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .500      PHI = 191.250

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFO1)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFO6)    DATA NOT AVAILABLE  
 (RNBFI6)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    1.500  
 .000    .000    1.500  
 .000    .000    1.500

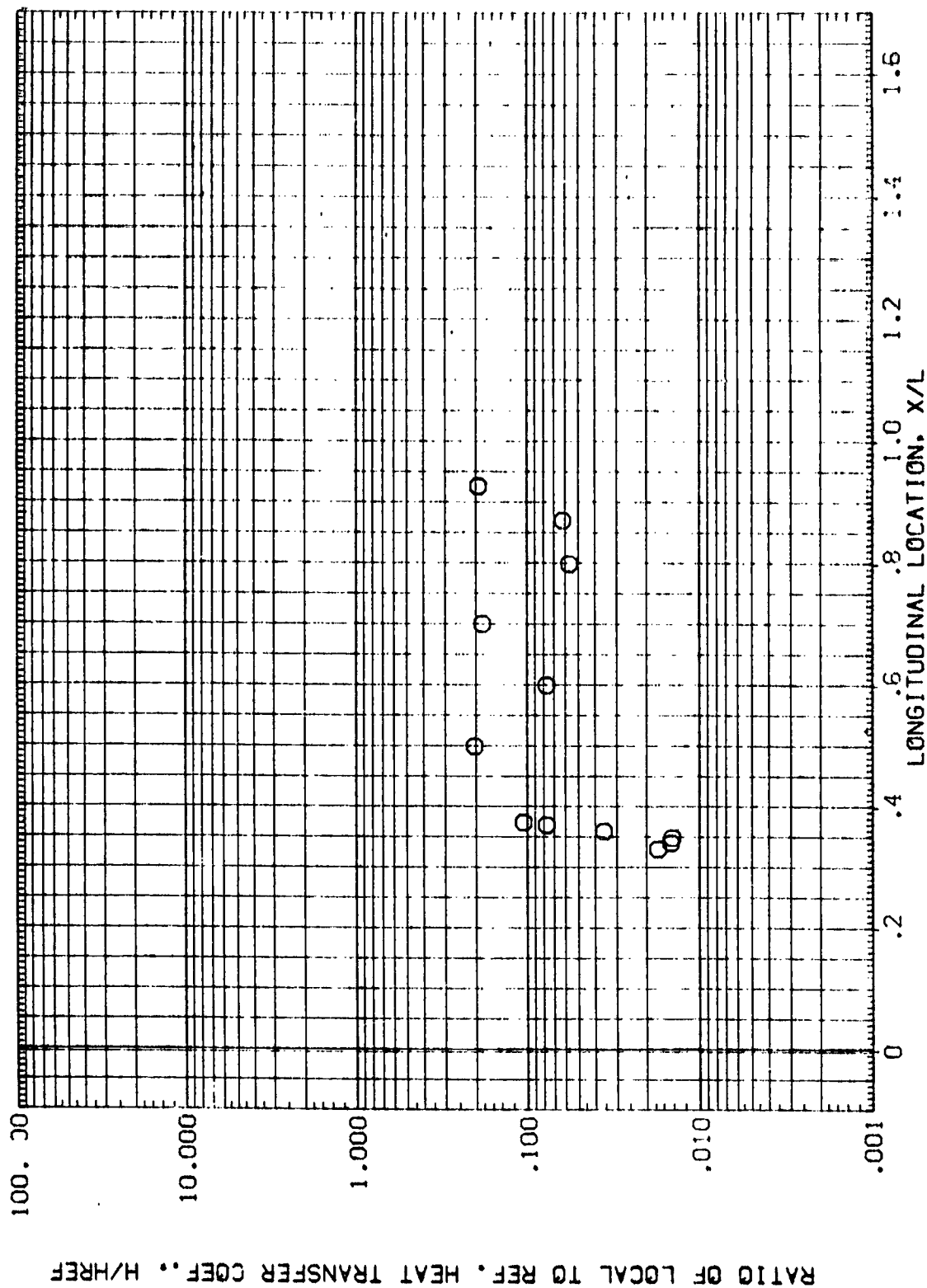


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 197.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO1)      ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      1.500  
 (RNBFO6)      DATA NOT AVAILABLE      .000      .000      1.500  
 (RNBFI6)      DATA NOT AVAILABLE

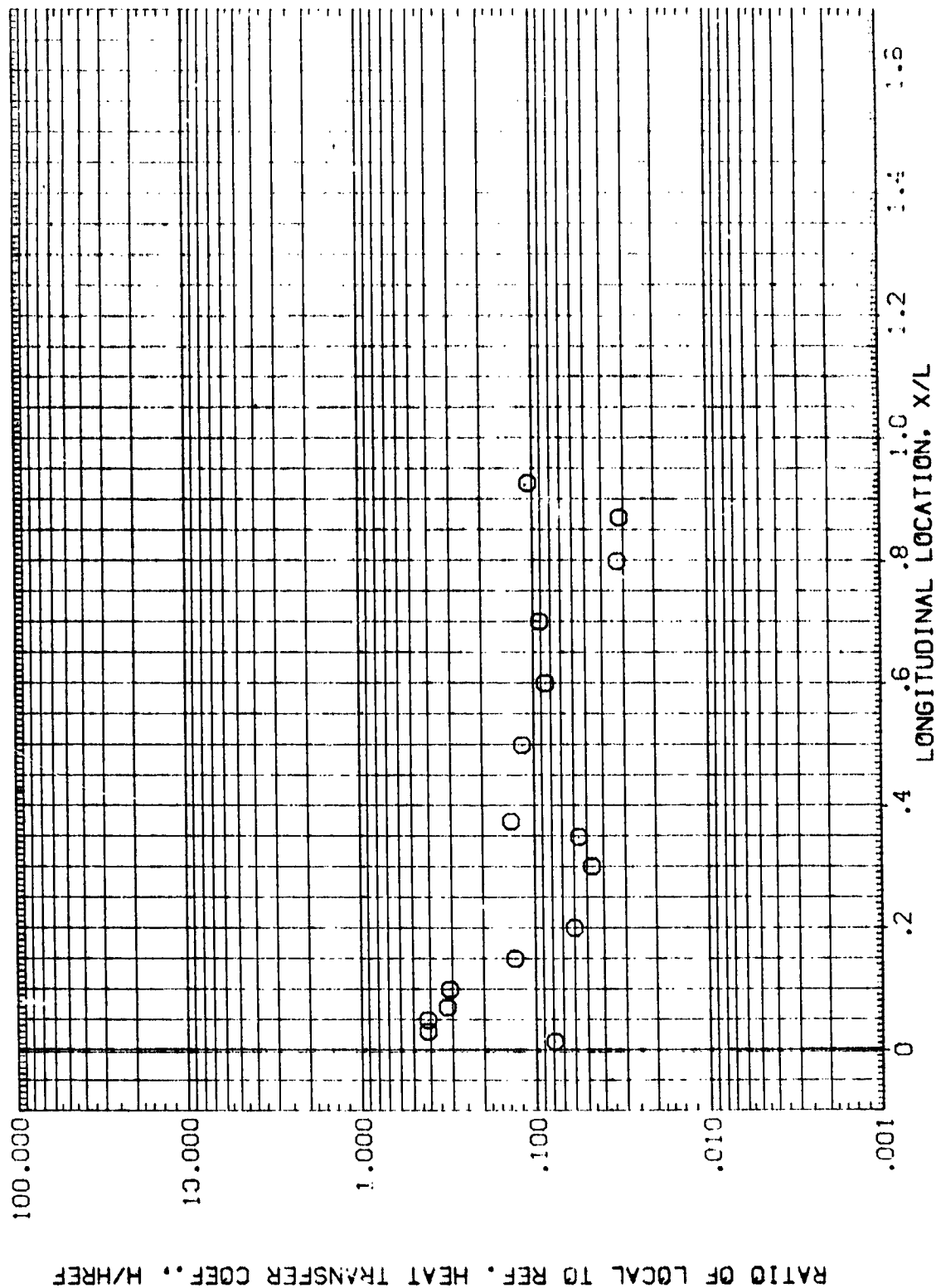


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(RNBFD1)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK    .000    .000    1.500

(RNBFD6)    DATA NOT AVAILABLE    .000    .000    1.500

(RNBFD16)    ARC3.5-211(IH48)DET /NIPPLE/CLEAN    .000    .000    1.500

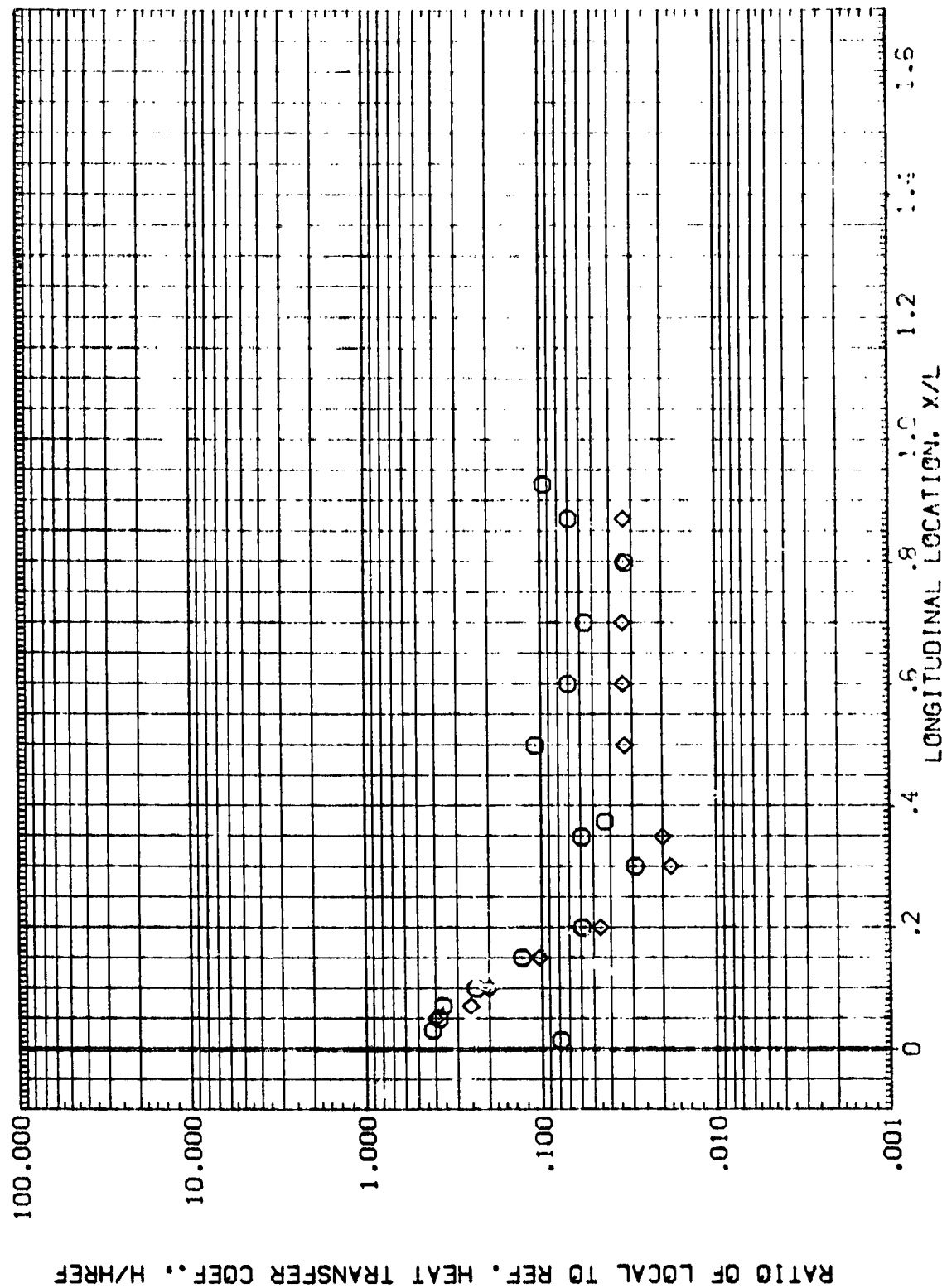


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 217.700

DATA SET SYMBOL: 0H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA BETA RAY-  
(BNBF01) 0 .000 .000 1.500

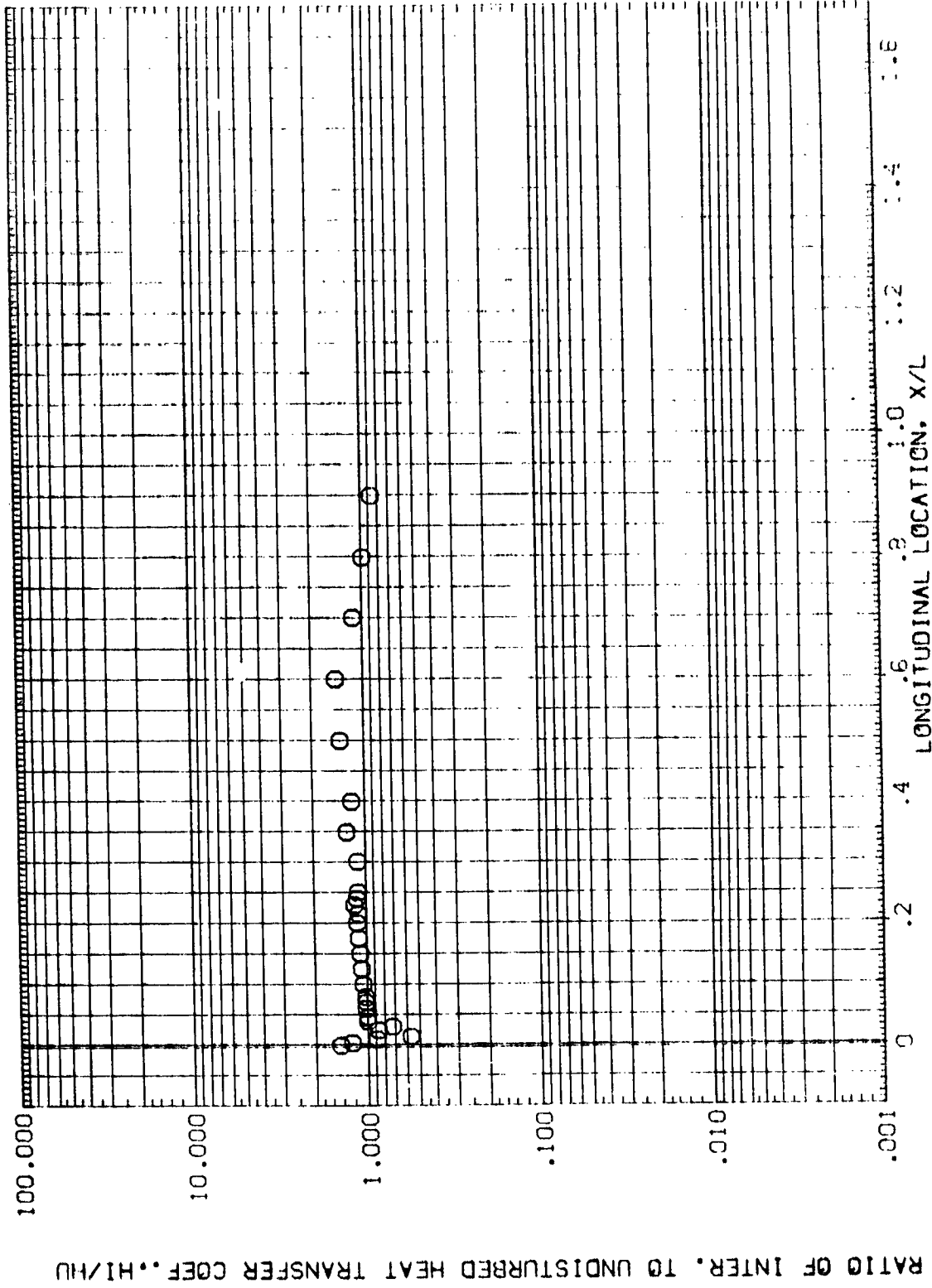


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/\_  
 (BNBF01)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    1.500

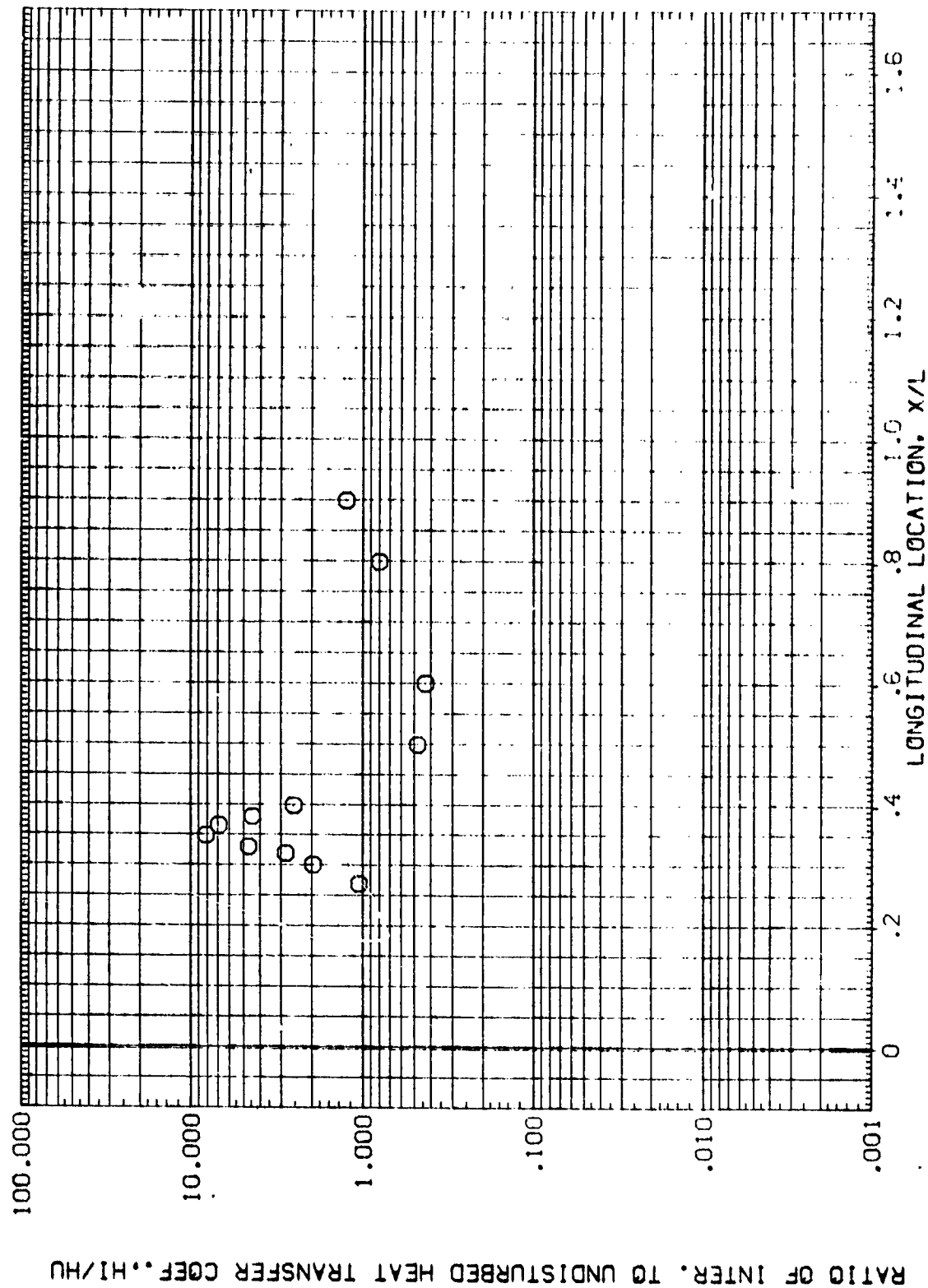


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .300    CMH = 67.500

DATA SET SYMBOL: 0H-48, AMES 3.5-211. N. N. ET INTERFERENCE DATA ALPHA BETA RN/L

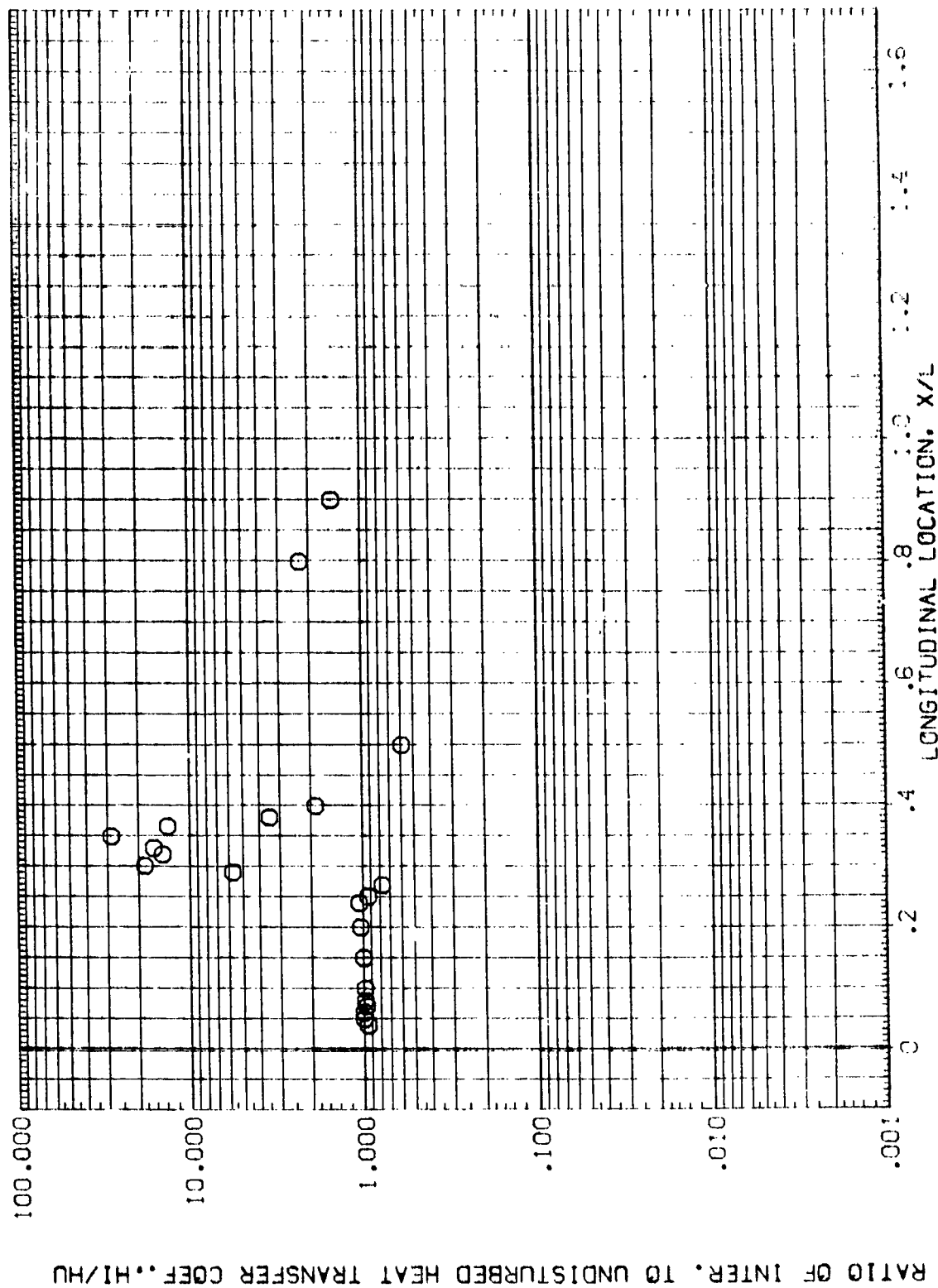


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(BNB01)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    1.500

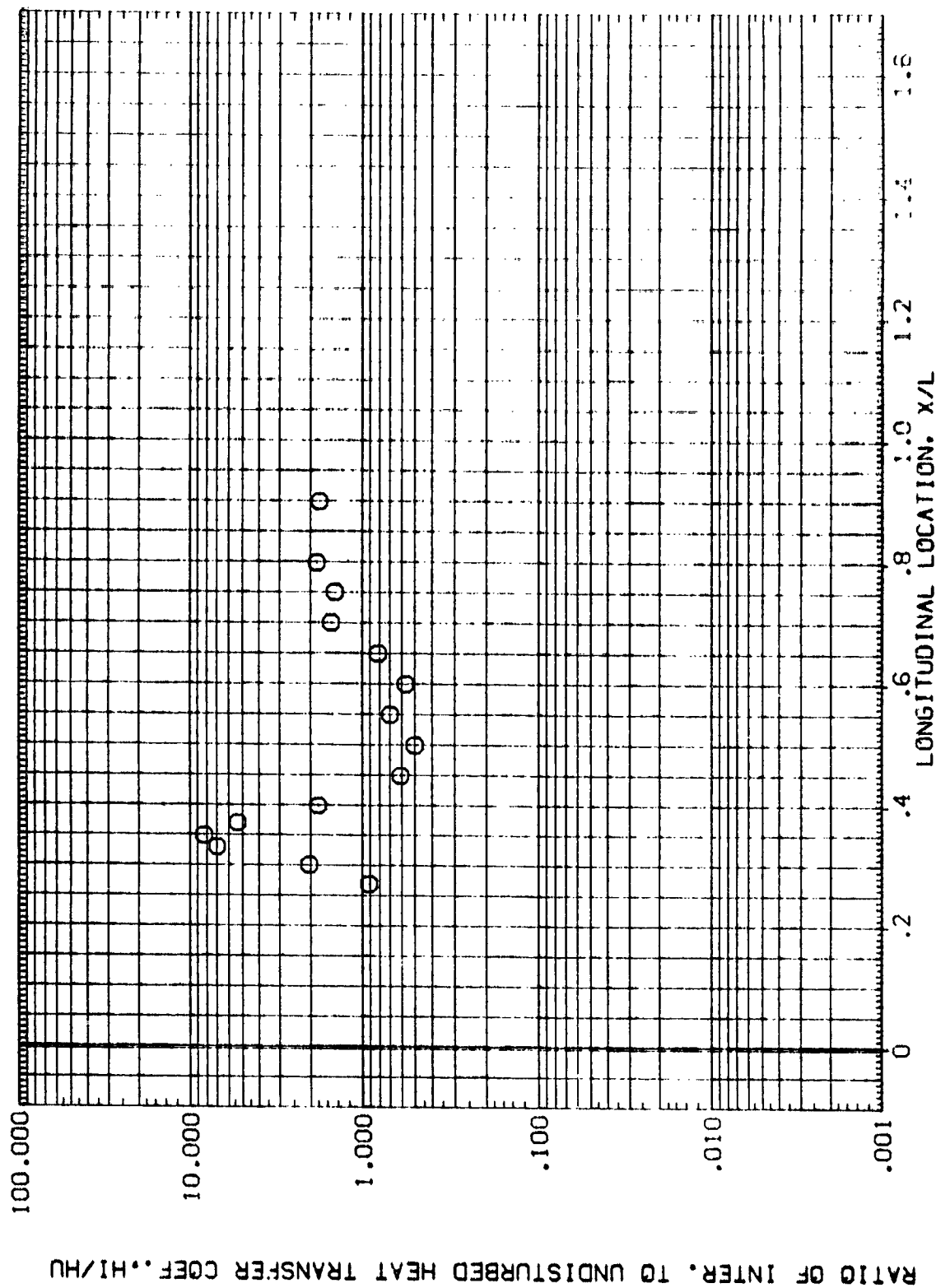


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 112.500

DATA SET SYMBOL: 0H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA BETA RVZ  
(0H-48) 0 .000 .000 1.500

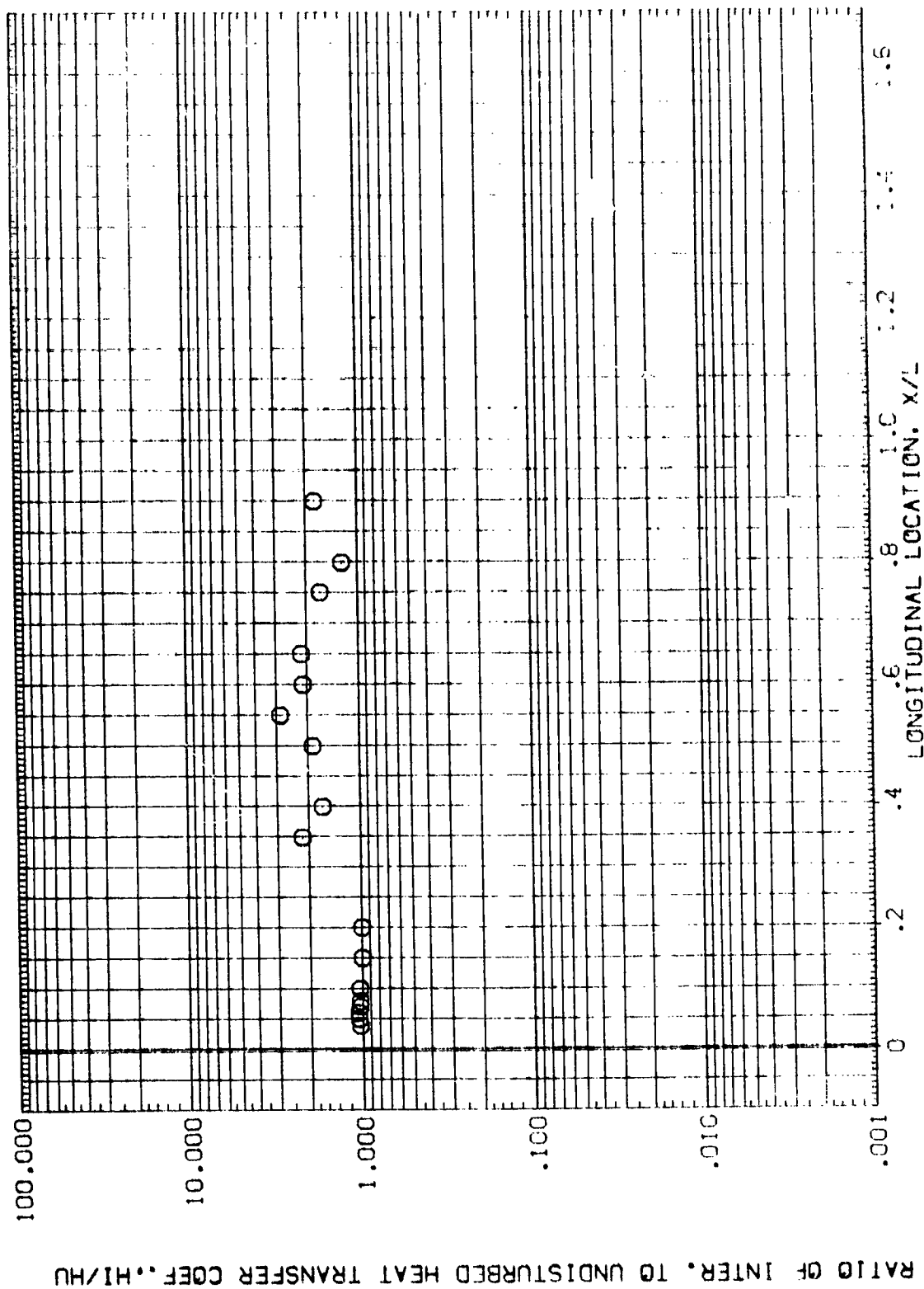


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 135.000 PAGE 24

DATA SET SYMBOL (BXBF01) ○ CONFIGURATION DESCRIPTION (H-48, ANES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA .000 BETA .000 RN/L 1.500

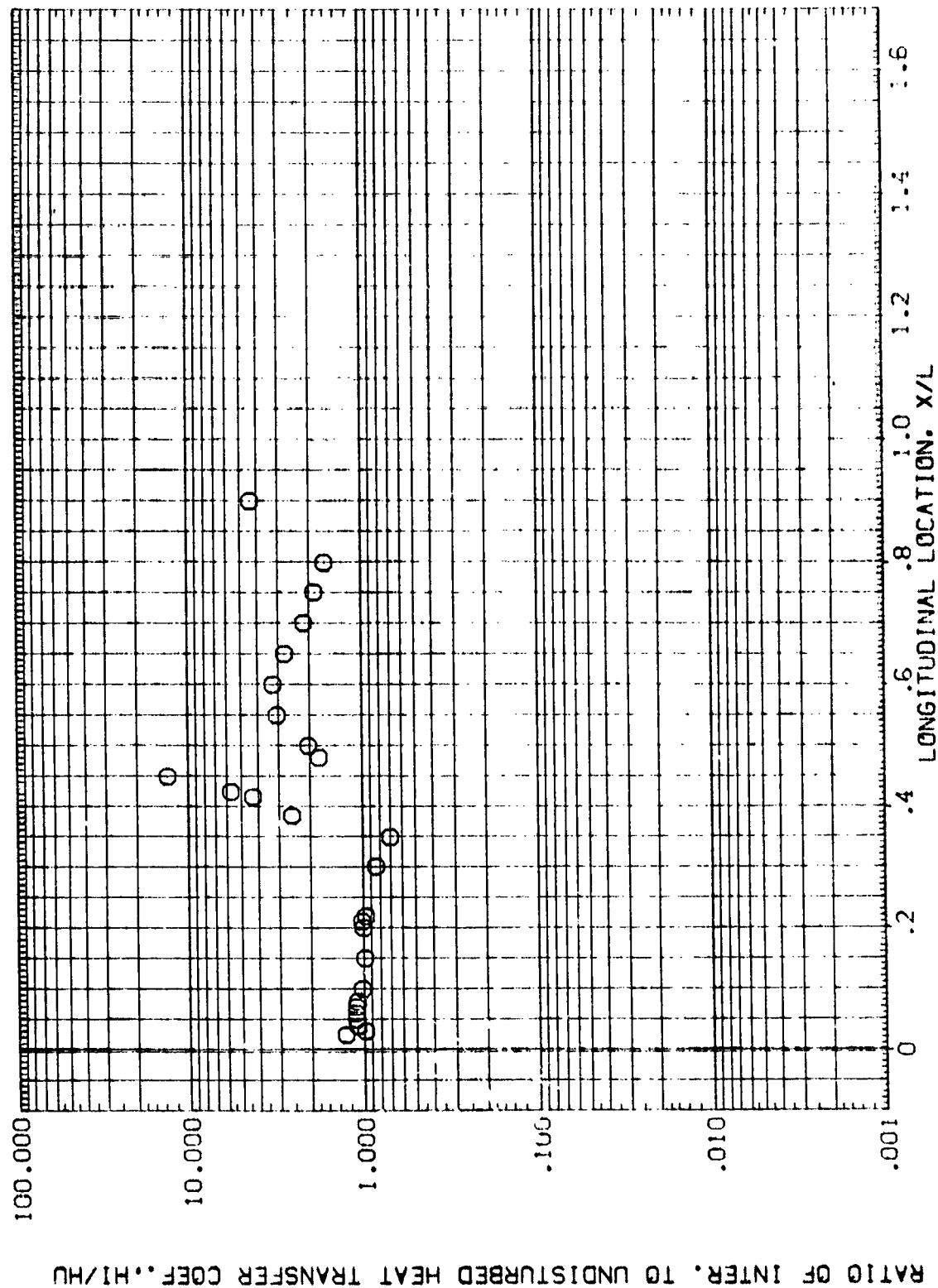


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RV/

(BN901) O IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

.000 .000 1.500

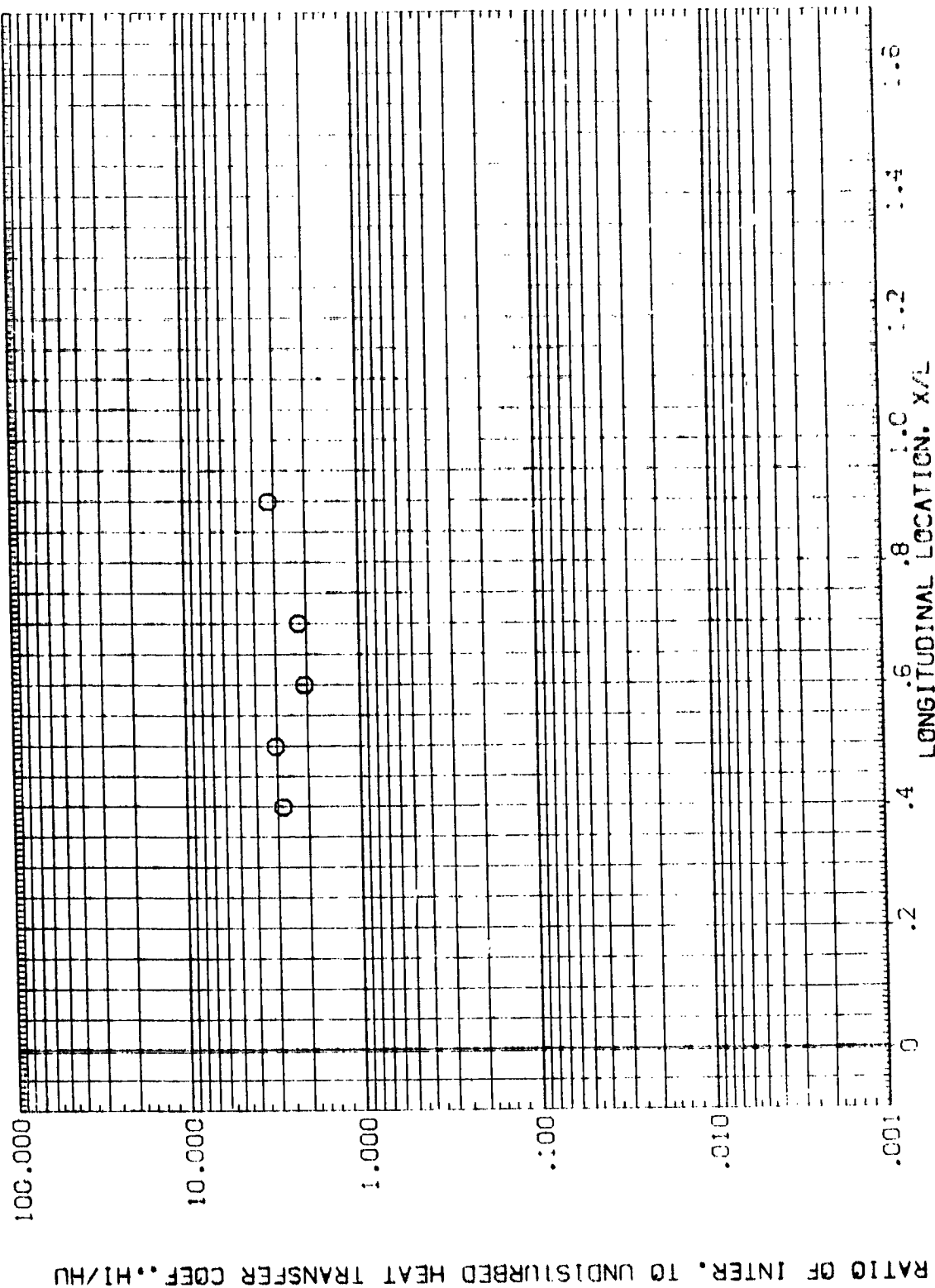


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250



DATA SET SYMBOL (BNEF01) ○ CONFIGURATION DESCRIPTION (H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA BETA  $R_{w/L}$  .000 .000 1.500

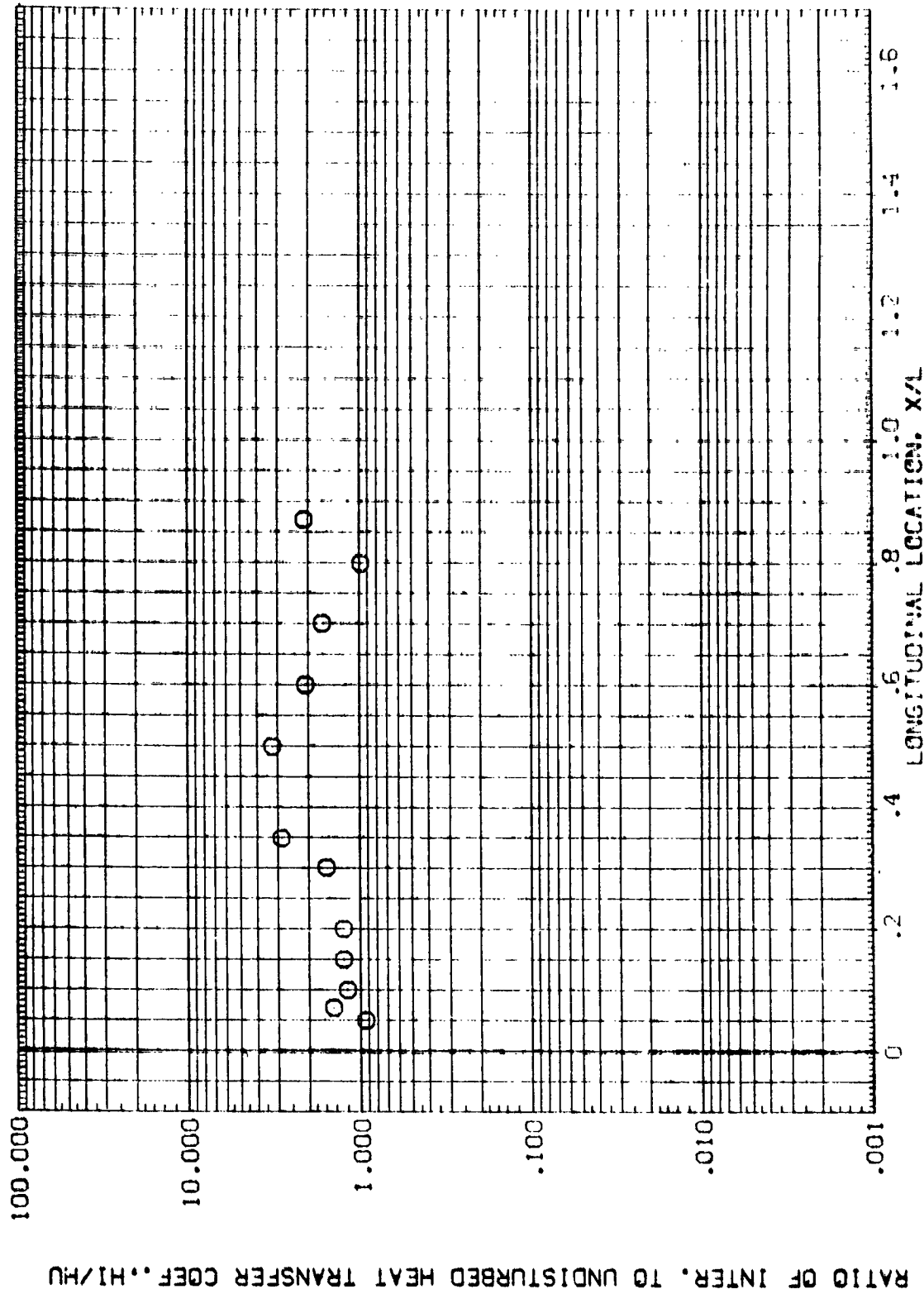


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HI = .900 PHI = 217.700

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RABF02)

(RABF17)

ARC3-S-2111(IH48)OTS/NIPPLE/P/TRIP(0-S)

ARC3-S-2111(IH48)JET /NIPPLE/CLEAN

EXT TANK

EXT TANK

ALPHA

BETA

RA

.000

.000

.000

.000

.000

.000

.000

.000

.000

RATIO OF LOCAL TO REF. HEAT TRANSFER COEFF., H/HREF

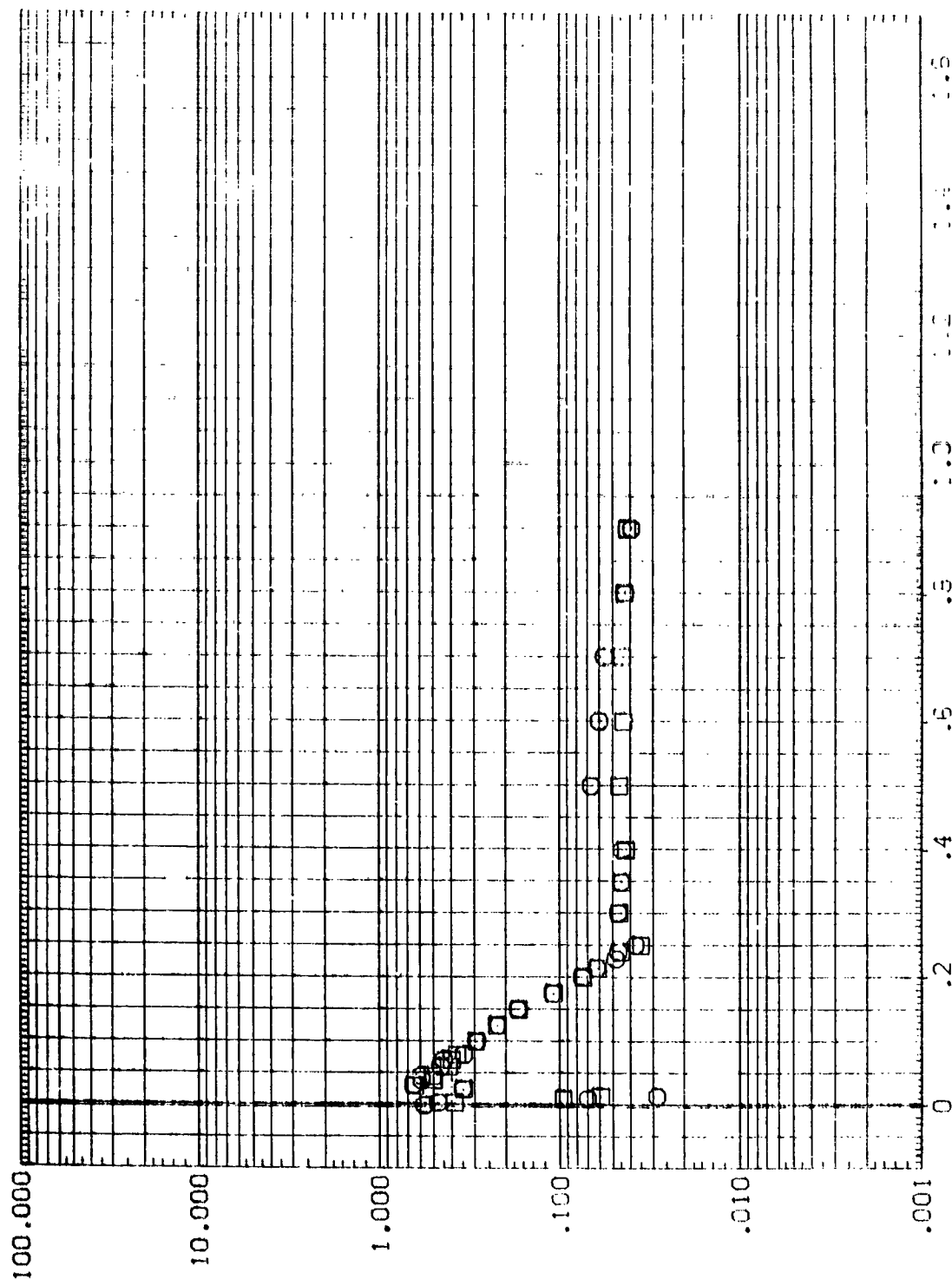


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L  
 (RNBFO2)    B    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK    .000    .000    5.000  
 (RNBFI7)    DATA NOT AVAILABLE    .000    .000    5.000

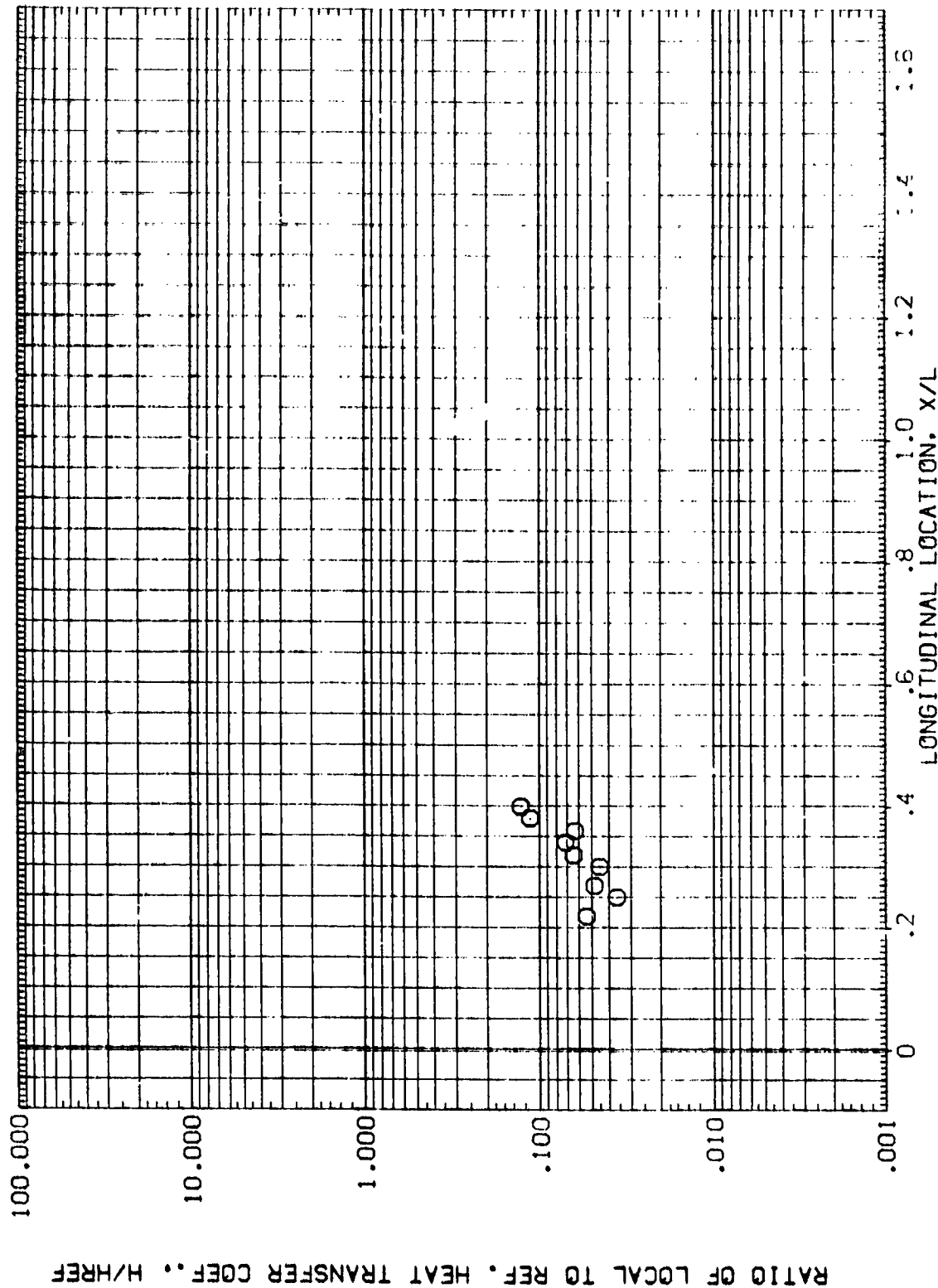


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    P-HI    55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000  
 (RNB17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK      .000      .000      5.000

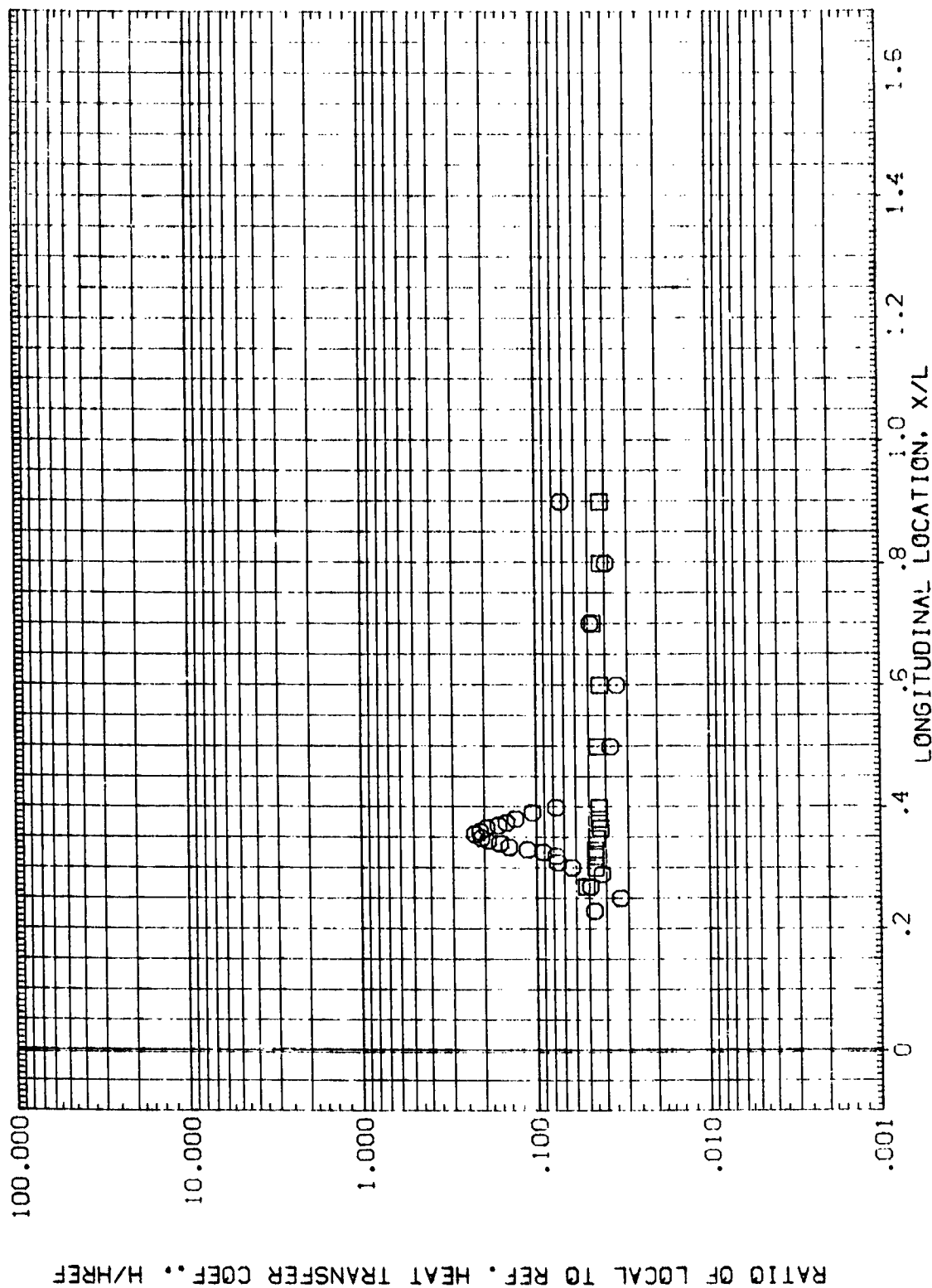


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000  
 (RNBFI7)      DATA NOT AVAILABLE

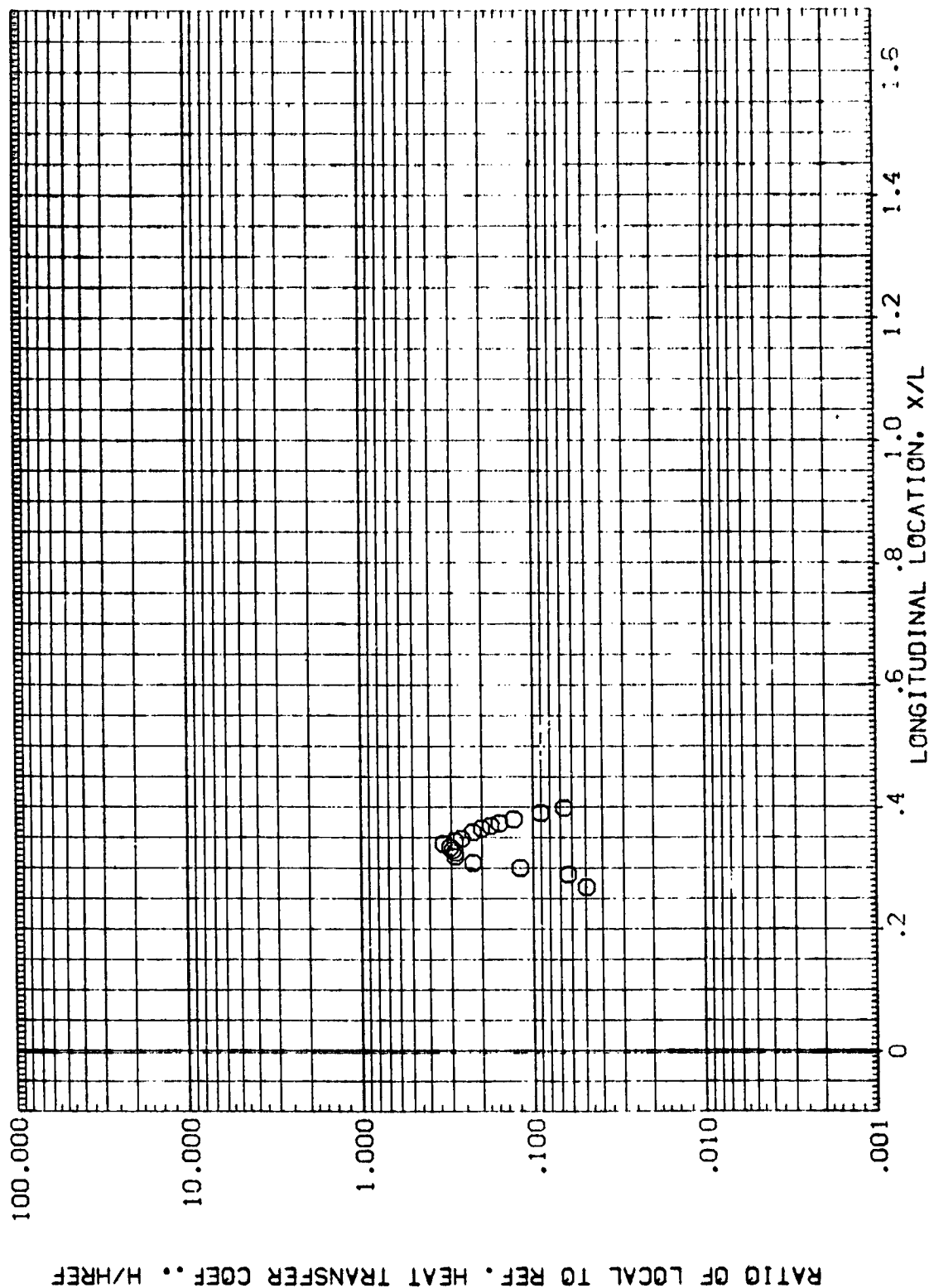


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFO2)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    .000    .000    5.000  
 (RNBFI7)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN    .000    .000    5.000

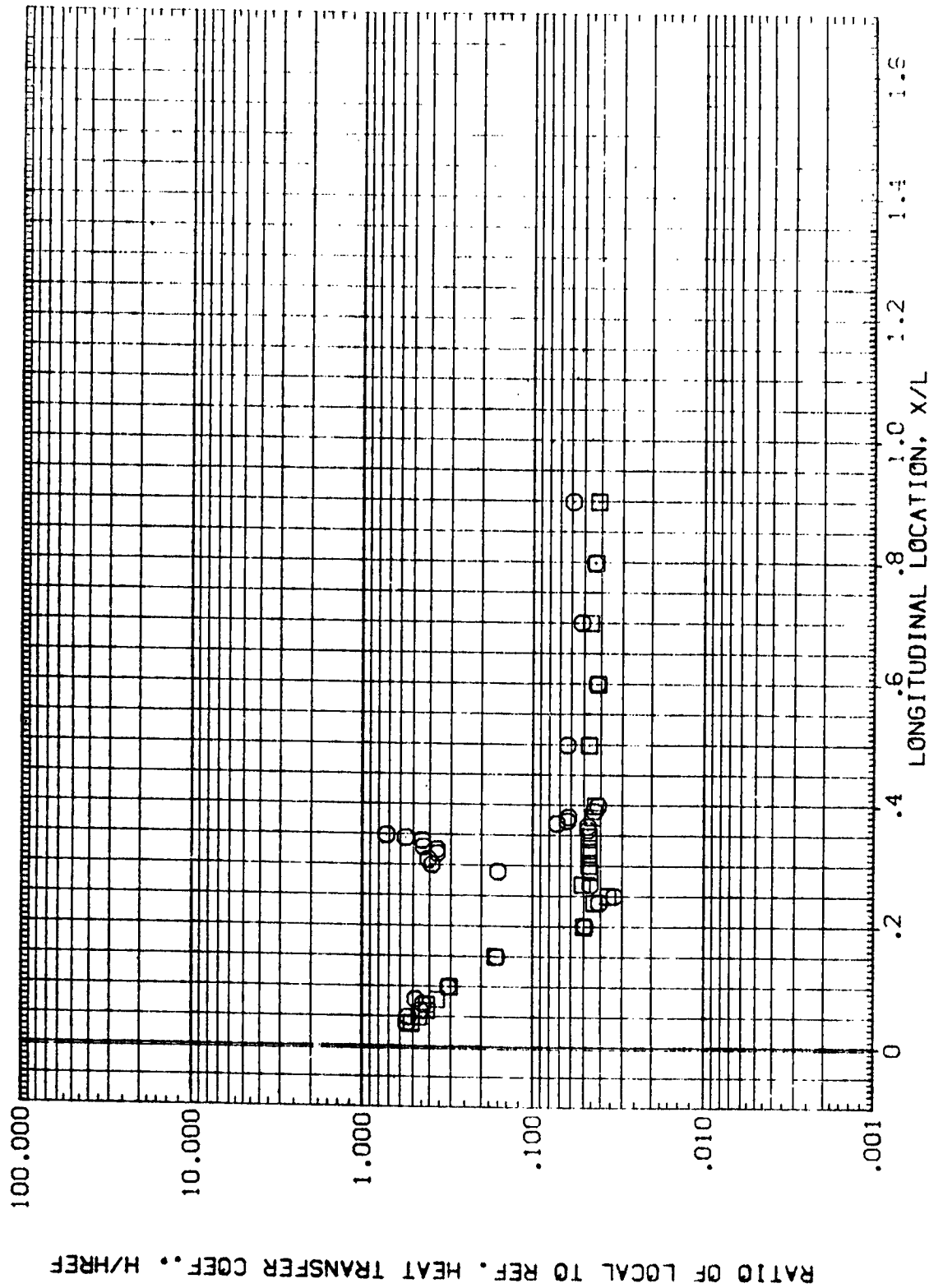


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFO2)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    .000    .000    5.000  
 (RNBFI7)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN    .000    .000    5.000

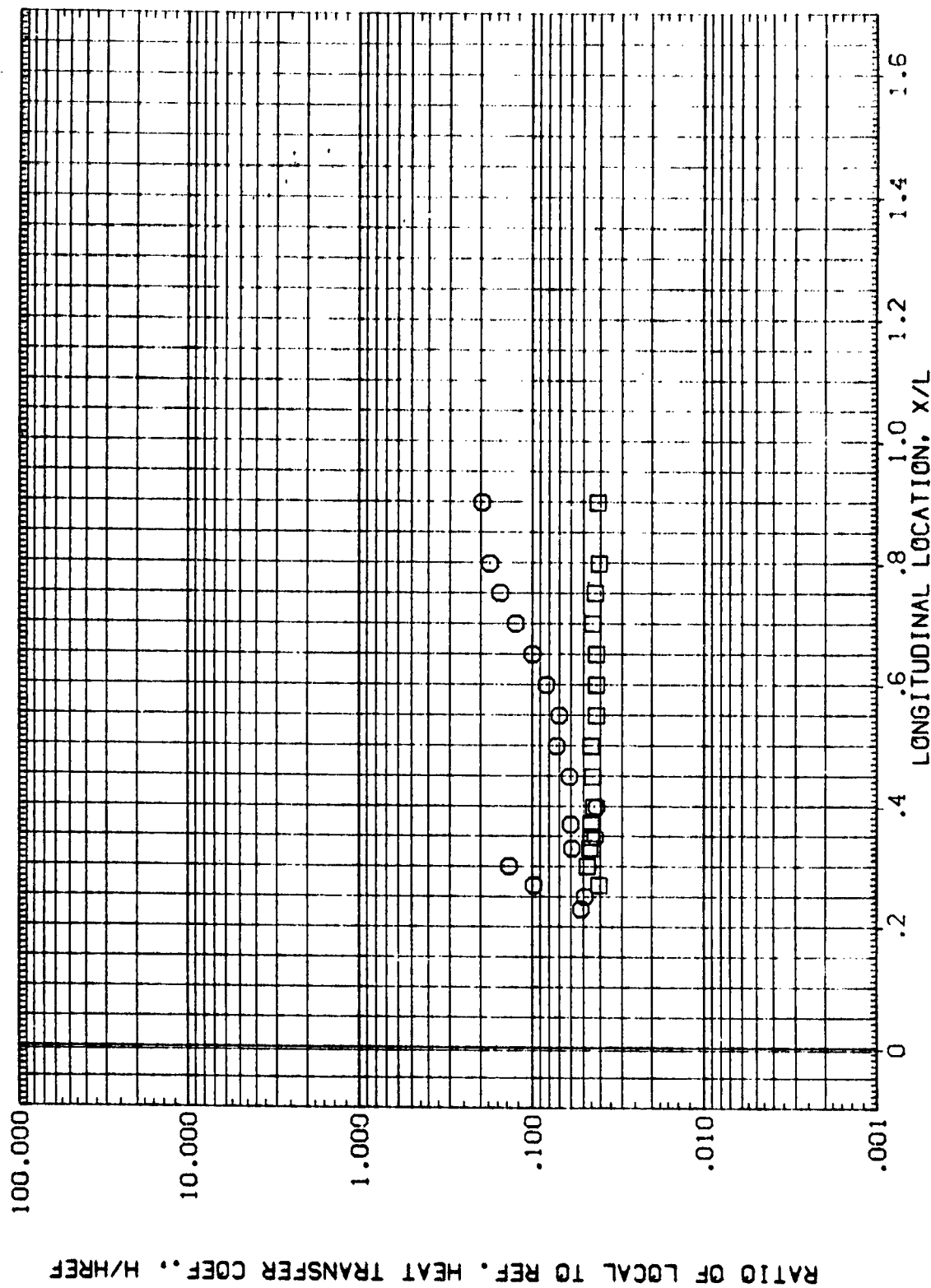


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 112.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L  
 (RNBFD2)    ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    .000    .000    5.000  
 (RNBFD7)    DATA NOT AVAILABLE    .000    .000    5.000

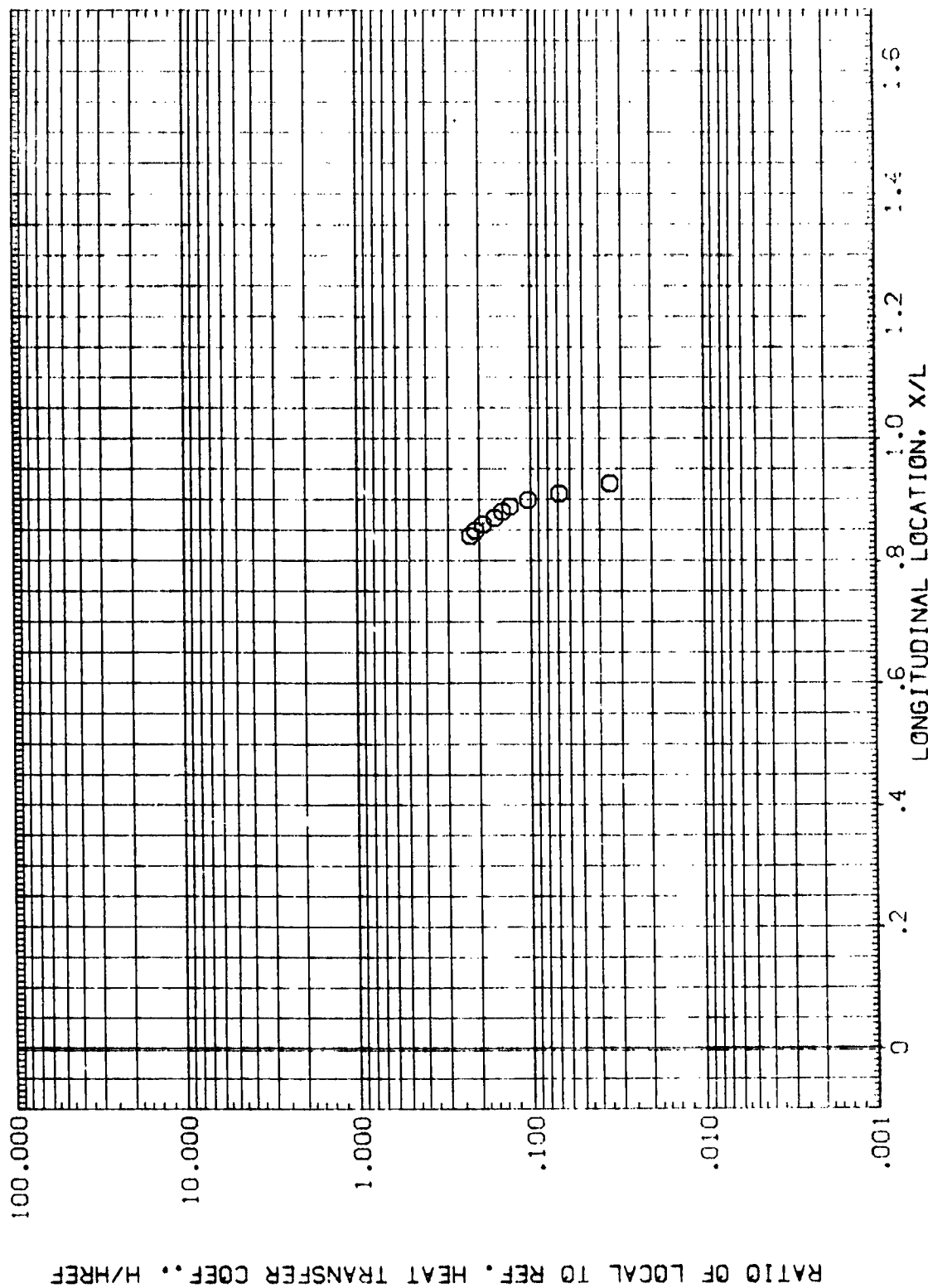


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 125.400



DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFO2)    □    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI7)       DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000

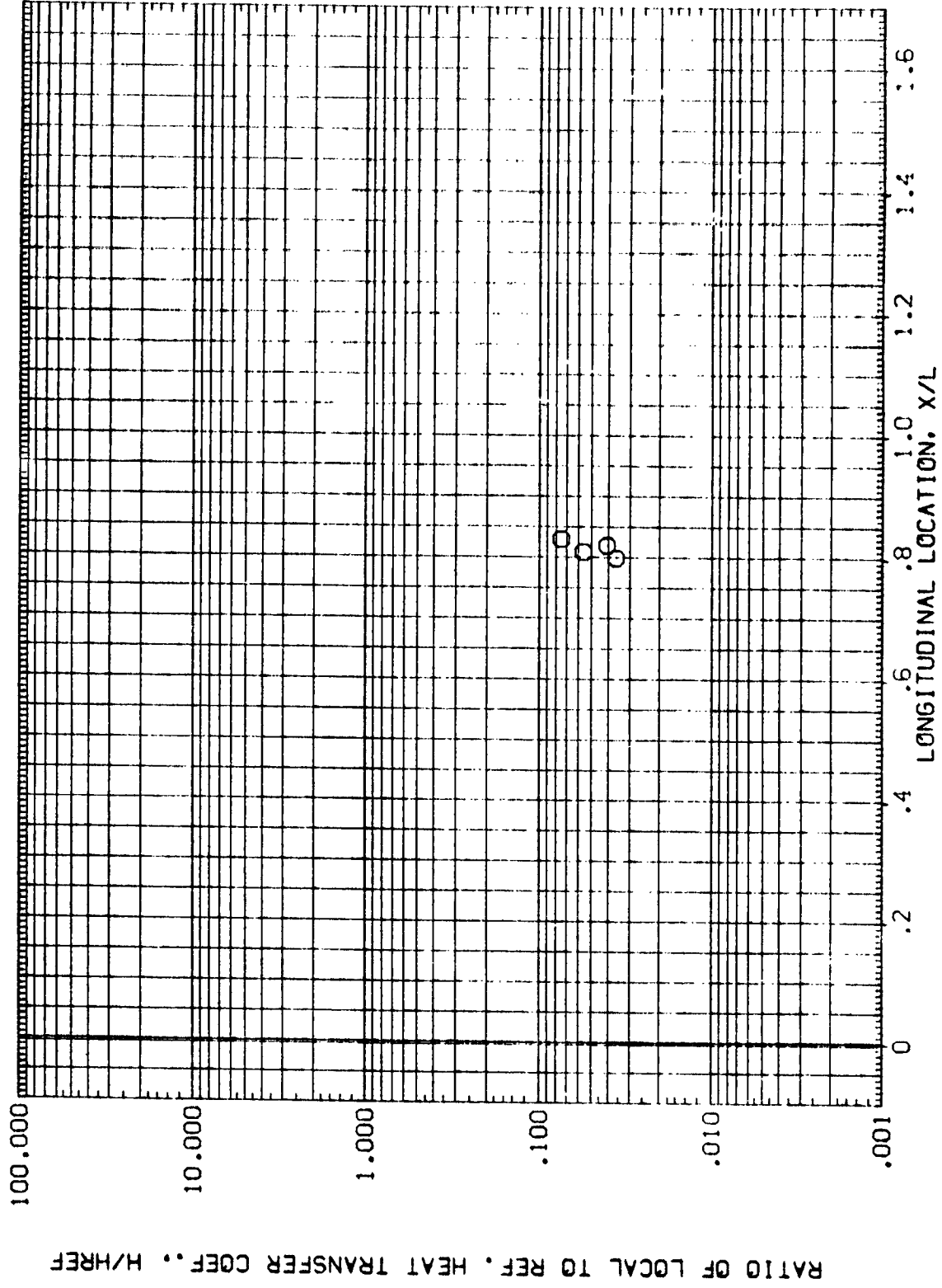


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300     $q_w/H_T = .300$     PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      .000      .000      5.000  
 (RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

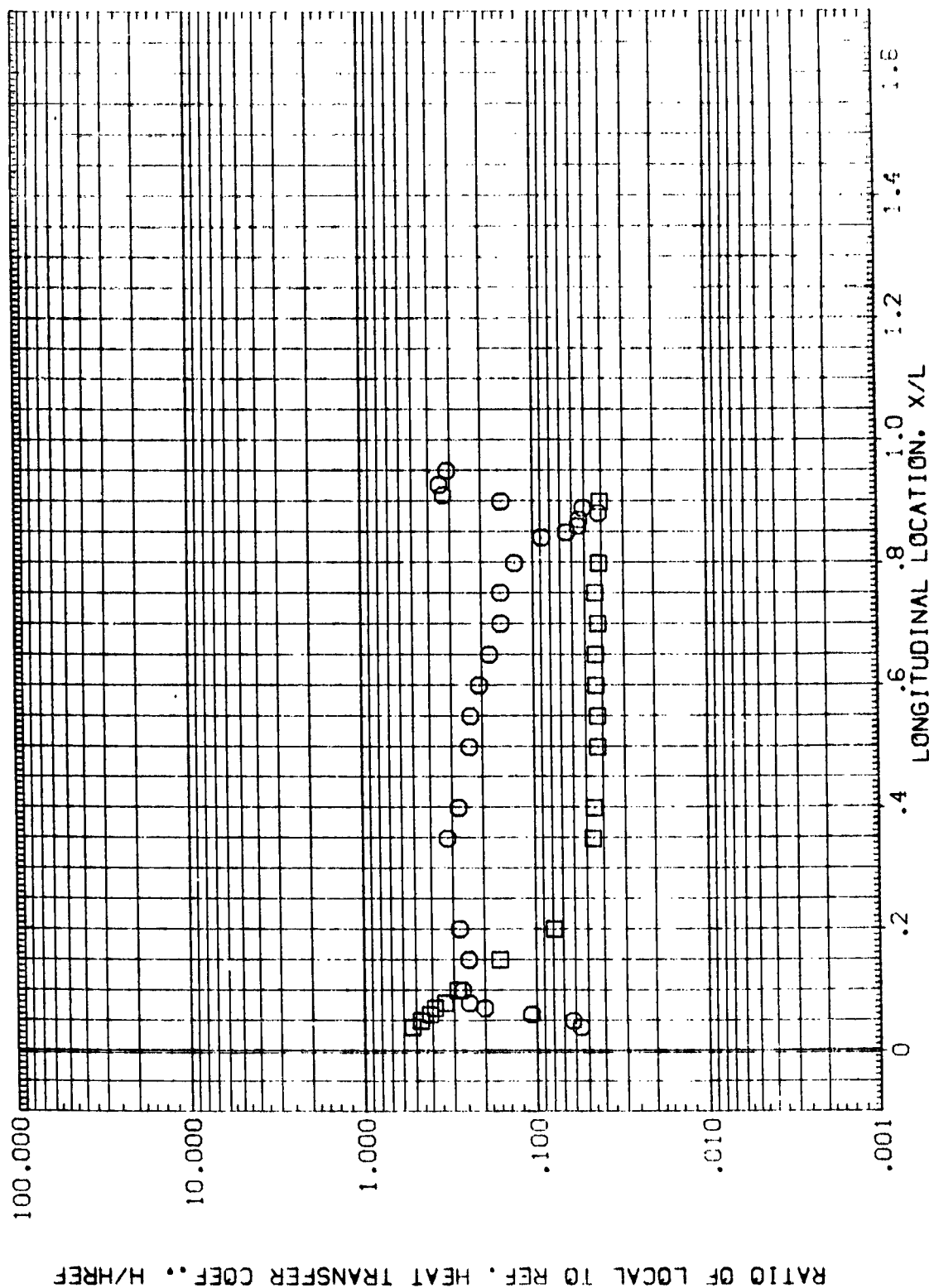


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (R13FC2)    ARC3-5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    .000    .000    5.000  
 (R13F17)    DATA NOT AVAILABLE    .000    .000    5.000

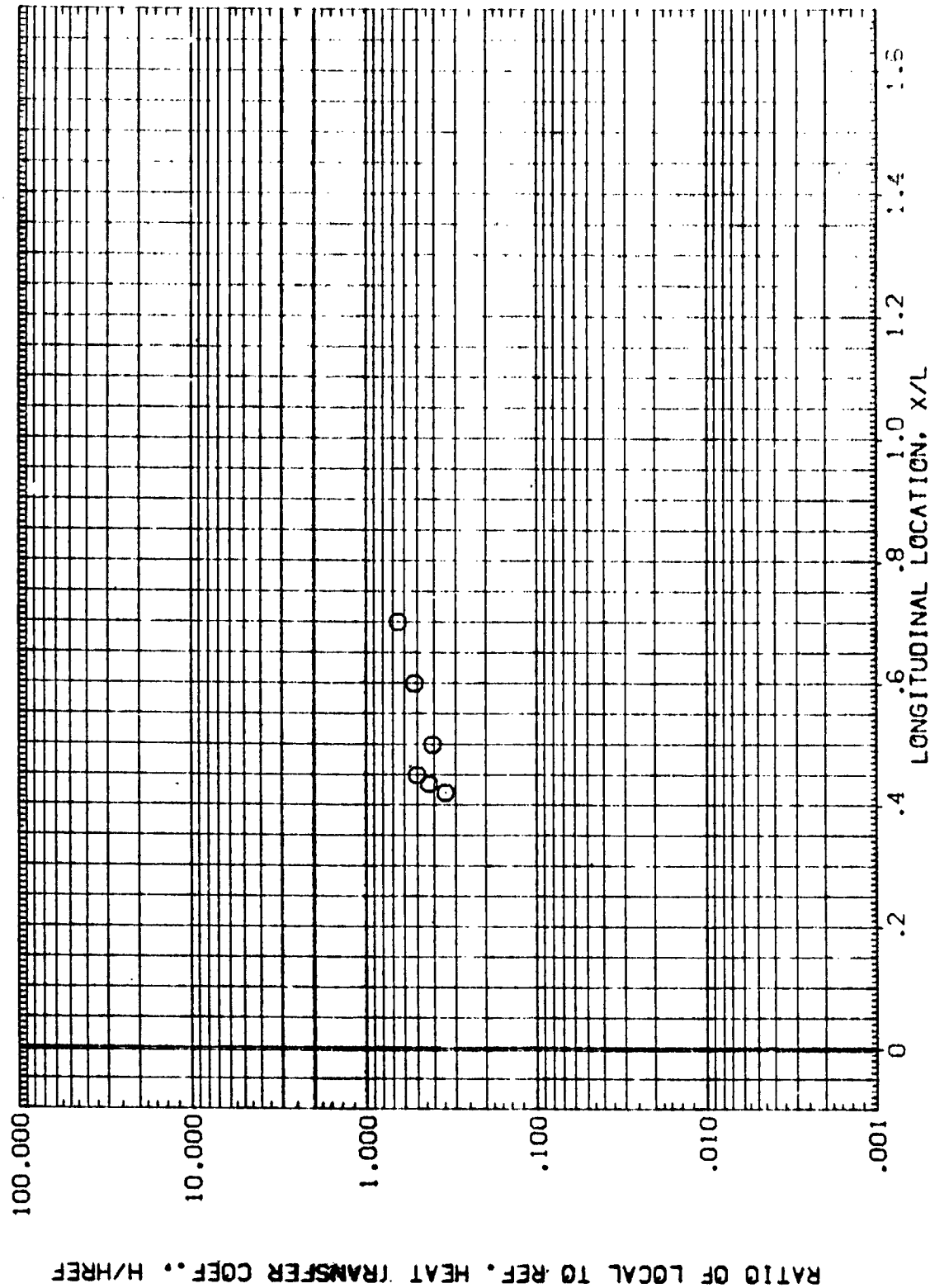


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO2) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFI7) ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000

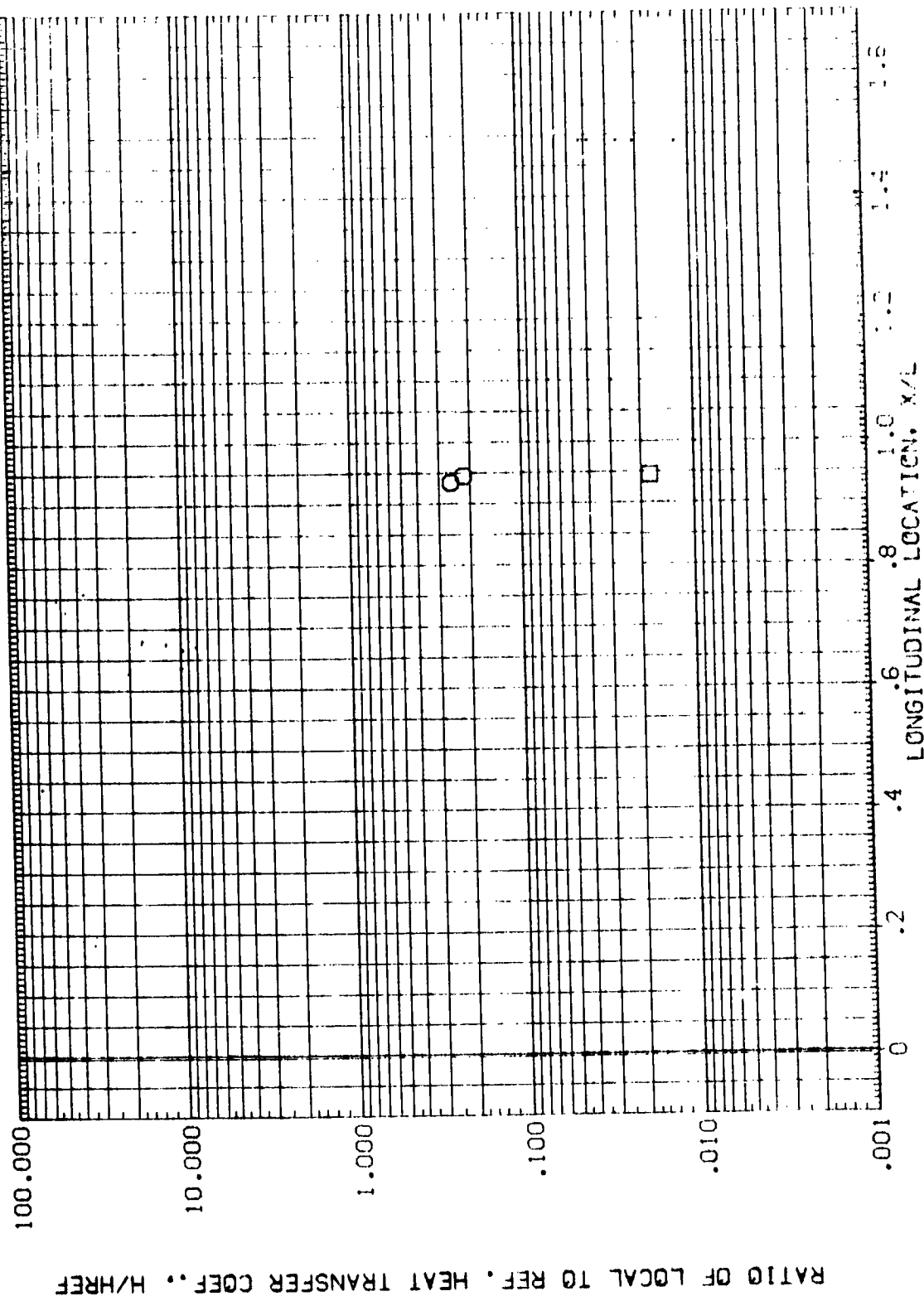


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RE/L

(RNGF02)      B      ARC3 5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

(RNGF17)      DATA NOT AVAILABLE

ALPHA      BETA      RE/L

.000      .000      5.000

5.000

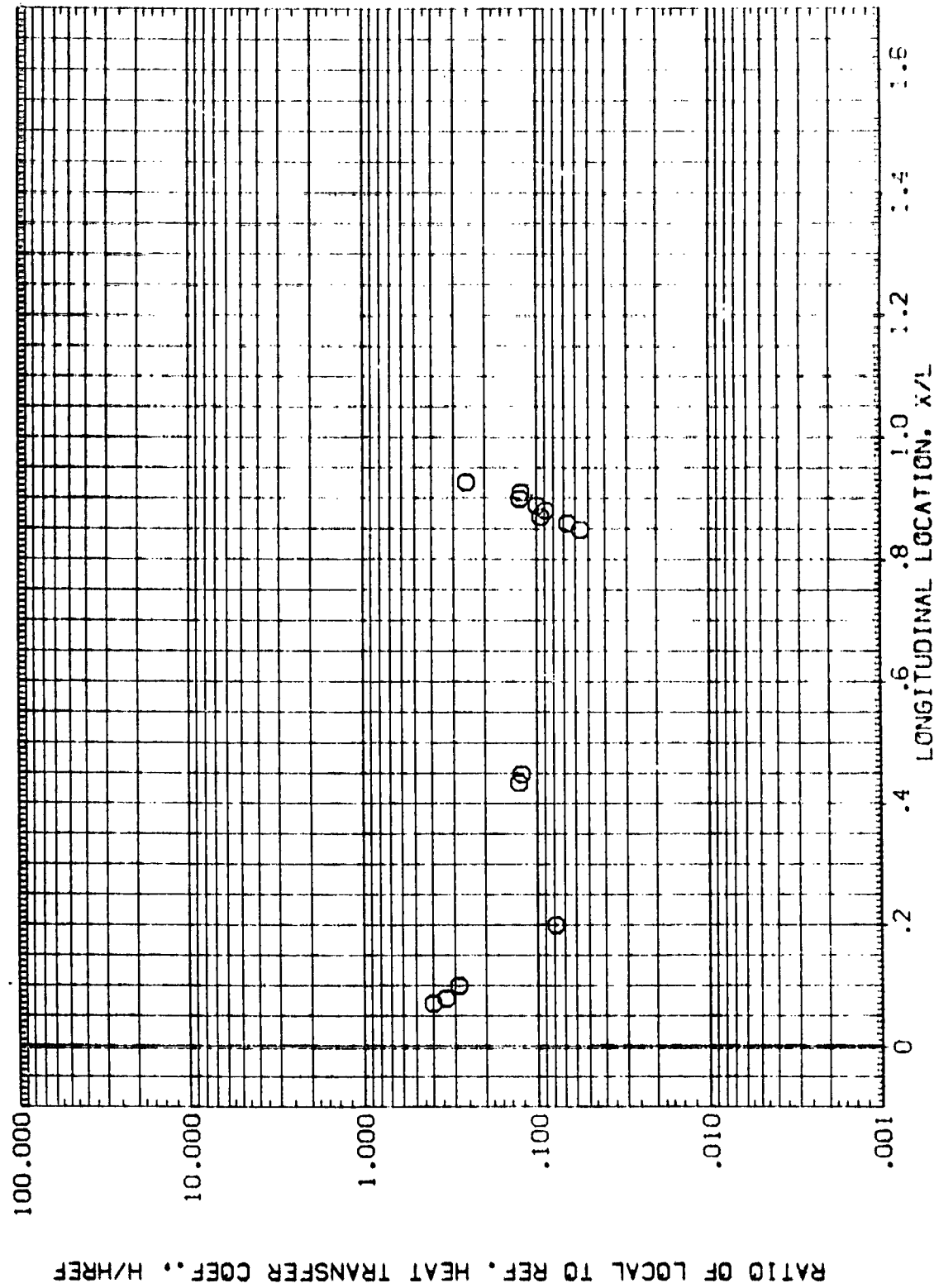


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PH = 157.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO2) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFI7) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000

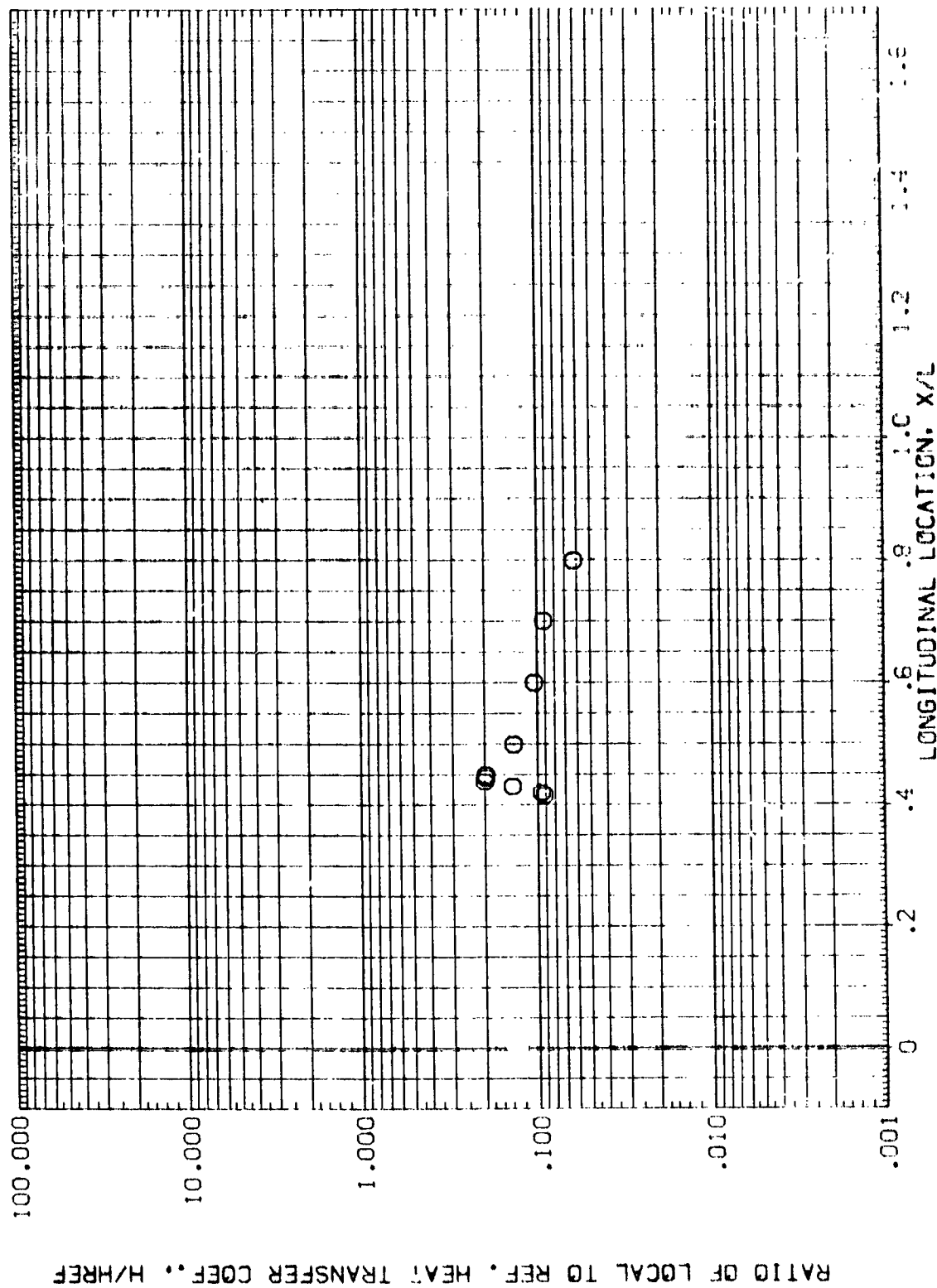


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HTE = .900 PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNB02)      ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNB17)      DATA NOT AVAILABLE

ALPHA      BETA      RNU/L  
 .000      .000      5.000  
 .000      .000      5.000

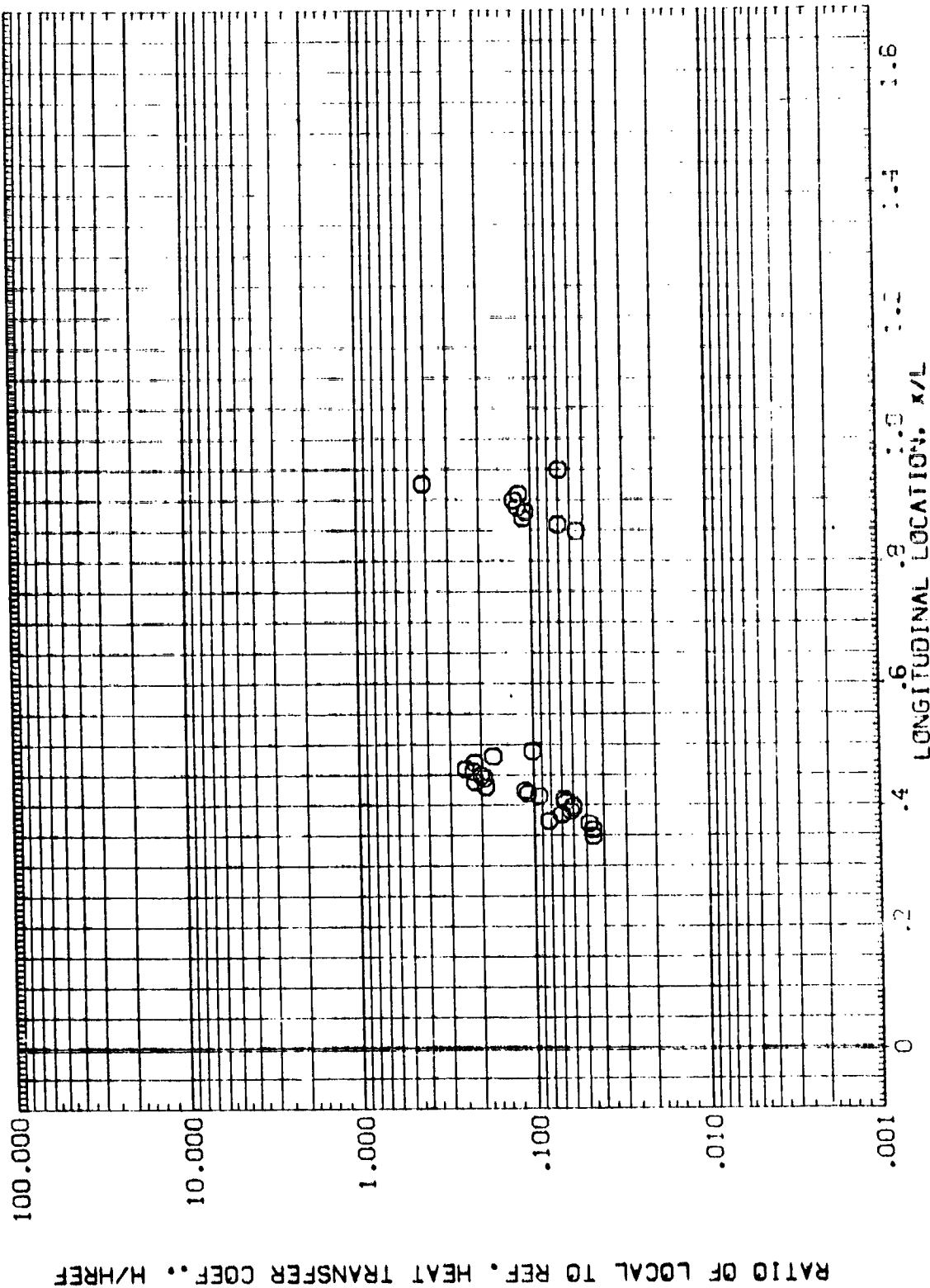


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 168.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RVL

(R48F02)      ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(C+S)      EXT TANK      .000      .000      5.300

(R48F17)      ARC3.5-211C(H48)JET /NIPPLE/CLENN      EXT TANK      .000      .000      5.000

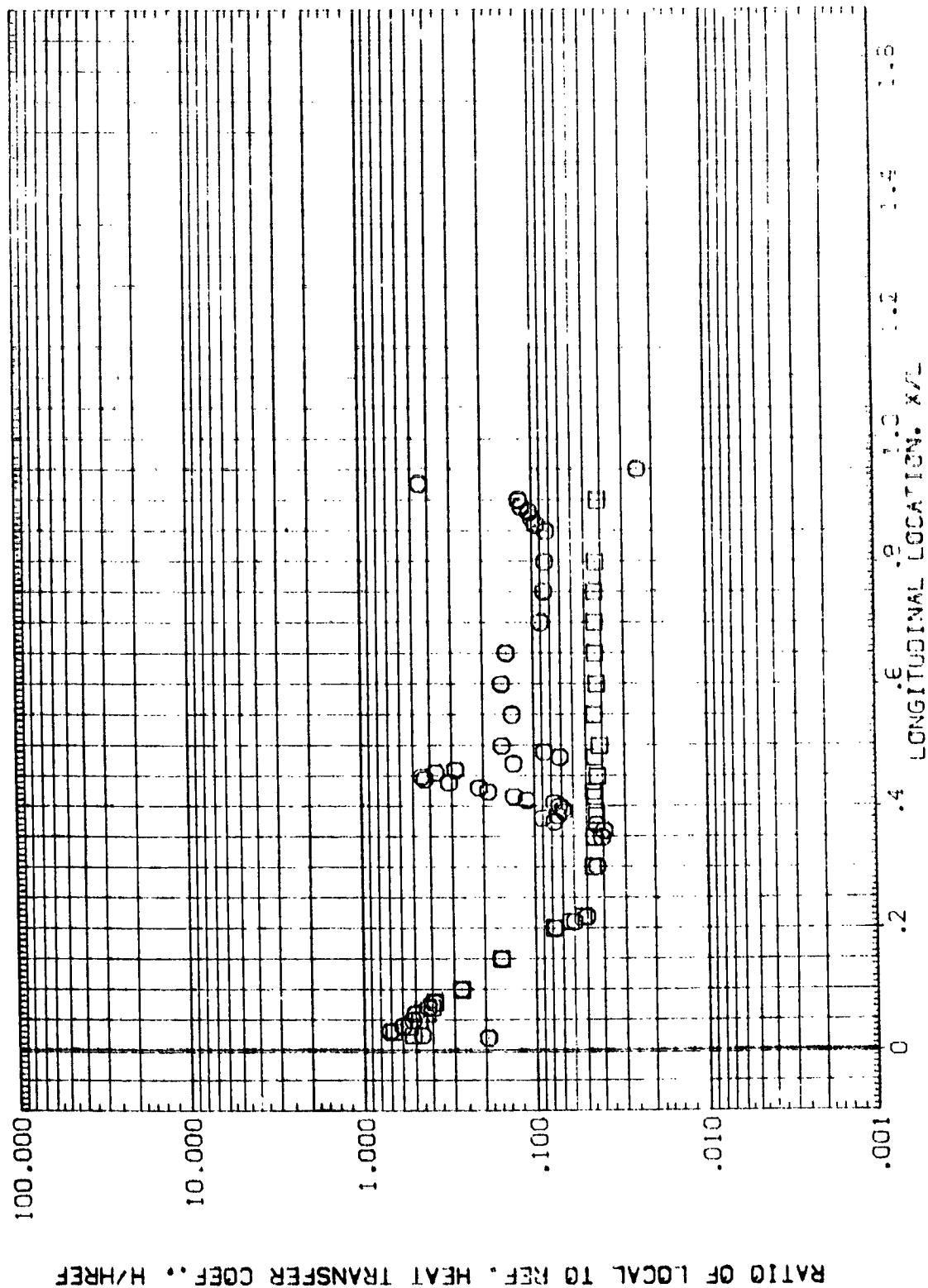


FIG. 04 EFFECT OF ORBITER AND SR9 PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PH = 100.000



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFG2)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)    .000    .000    5.000  
 (RNBFI7)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN    .000    .000    5.000

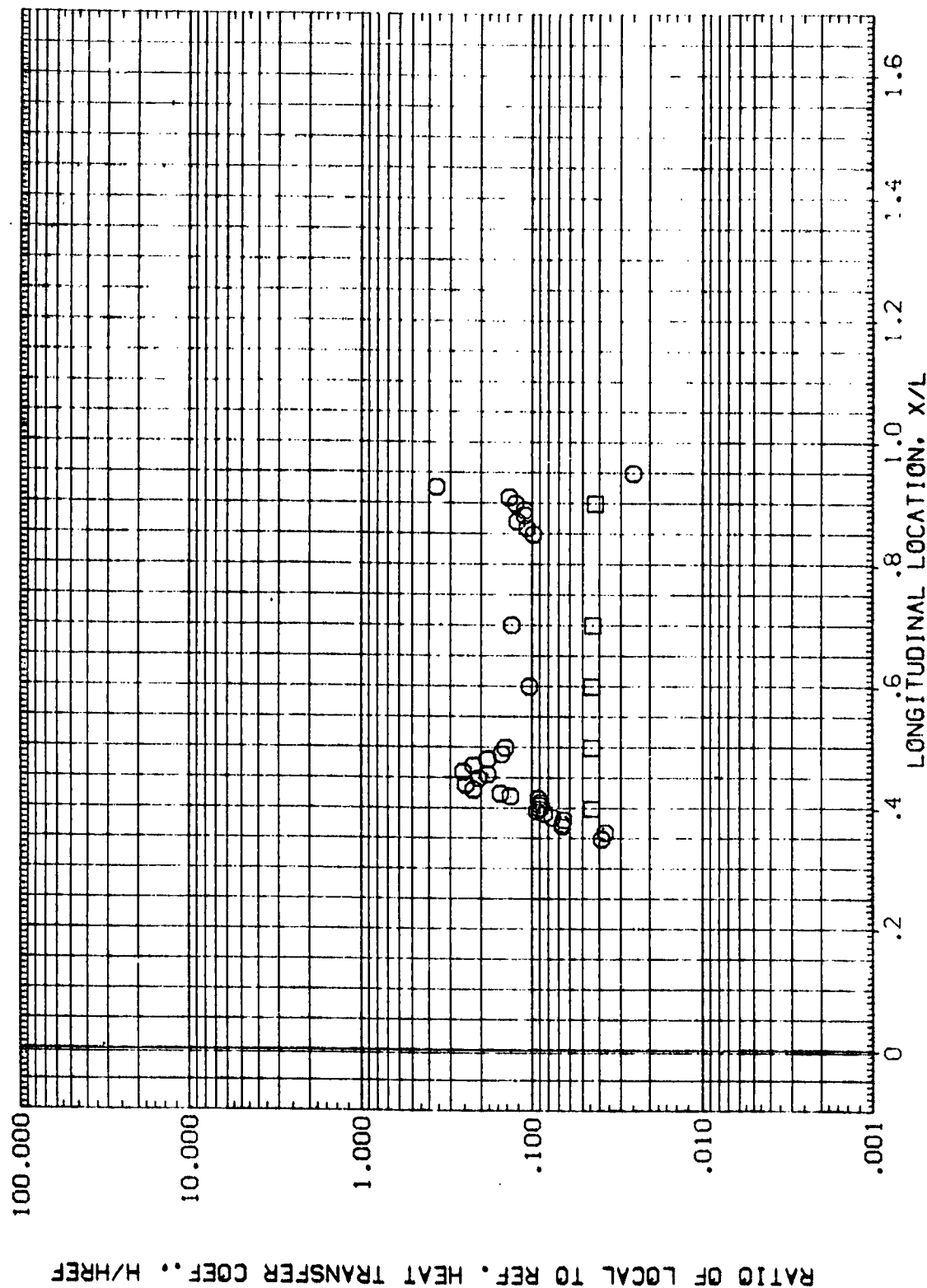


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/H<sup>T</sup> = .900    PHI = 191.250

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNB02)    ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    .000    .000    5.000  
 (RNB17)    DATA NOT AVAILABLE    .000    .000    5.000

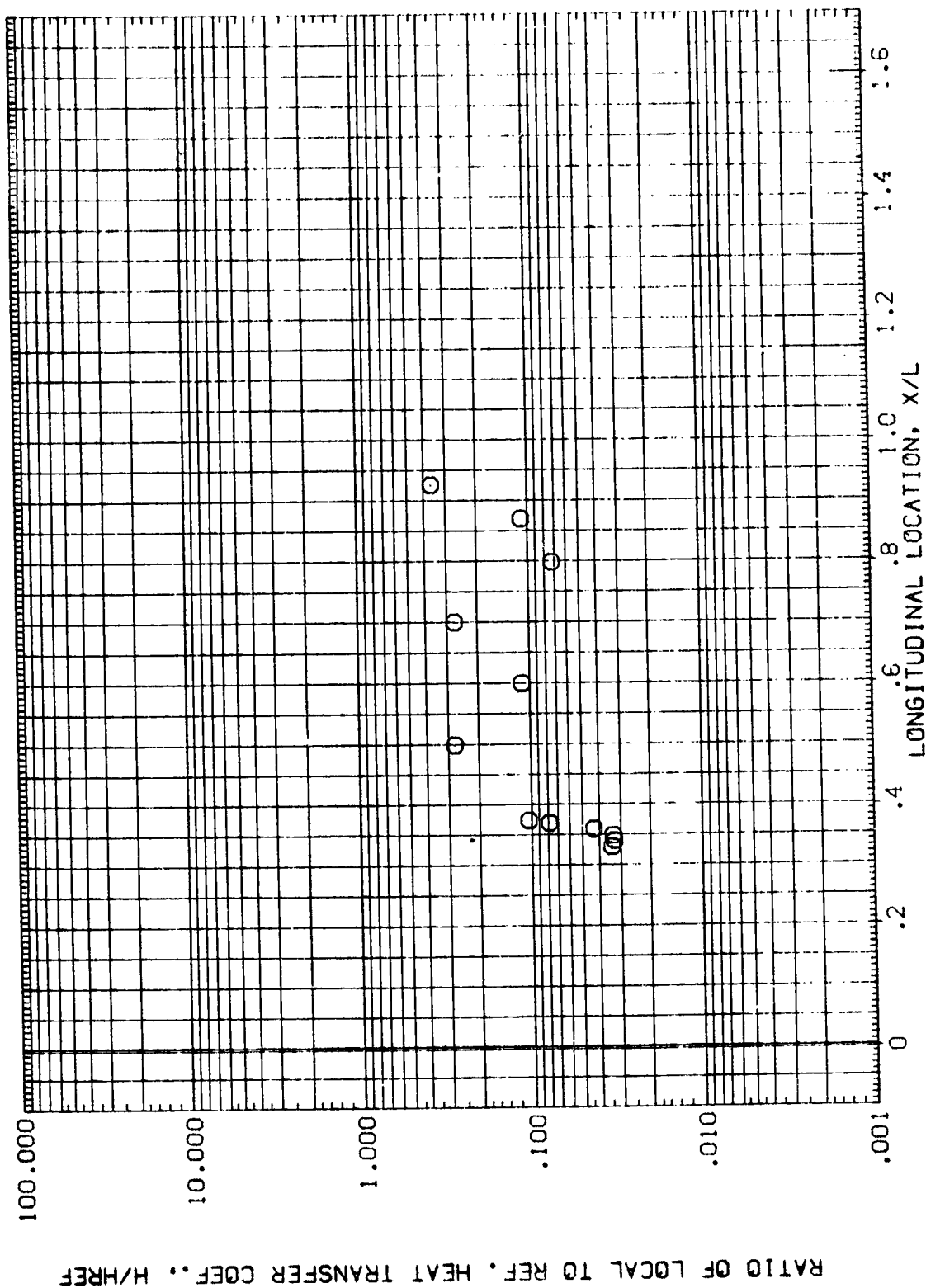


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 197.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO2)      ARC3-5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000  
 (RNBFI7)      DATA NOT AVAILABLE      .000      .000      5.000

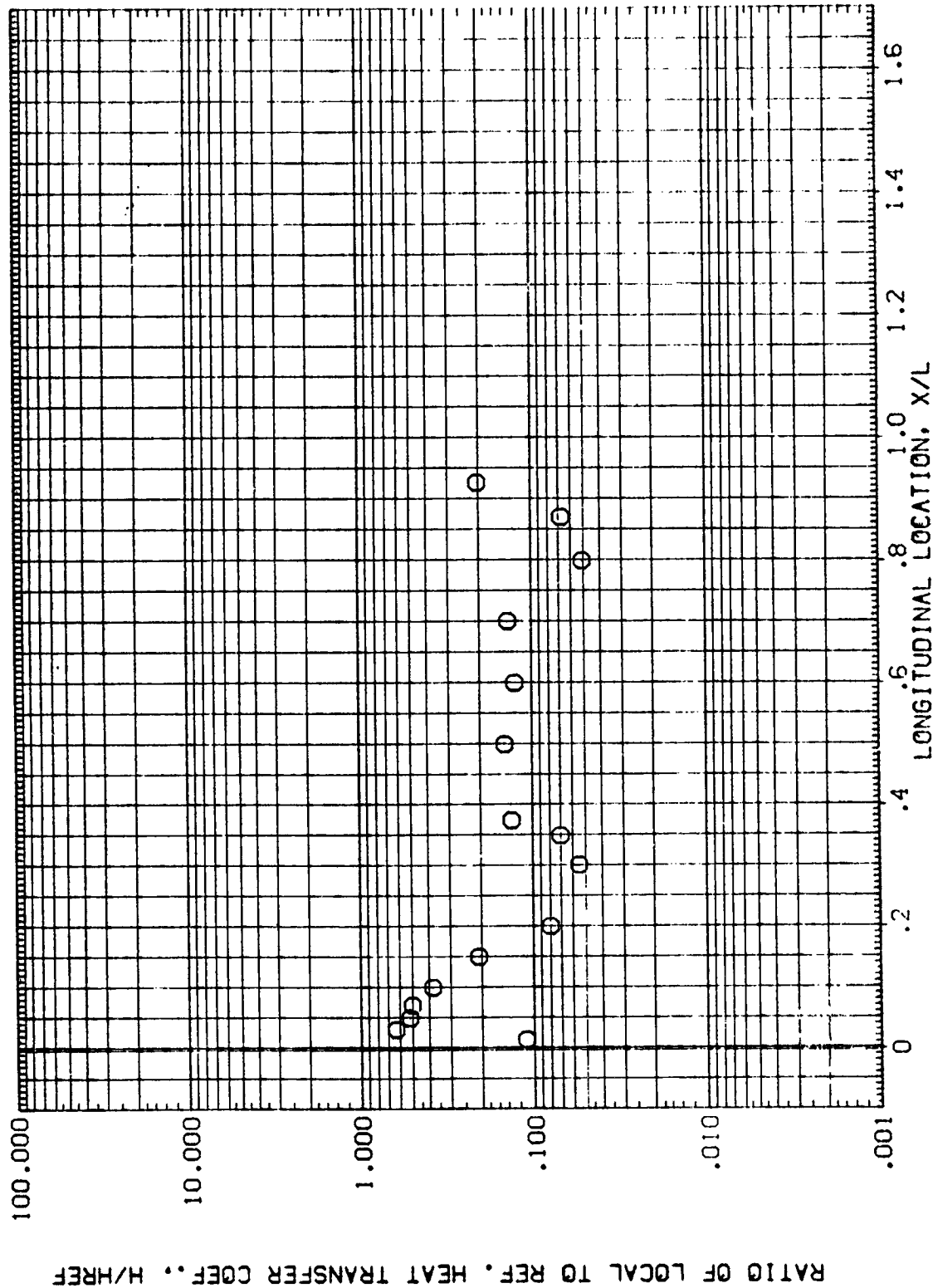


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RN/L  
 (RNB02) ARC3.5-211(1M48)OTS/N:P/PLE/P/TRIP(0+S) EXT TANK .000 .000 5.000  
 (RNB17) ARC3.5-211(1M48)ET /NIPPLE/CLEAN EXT TANK .000 .000 5.000

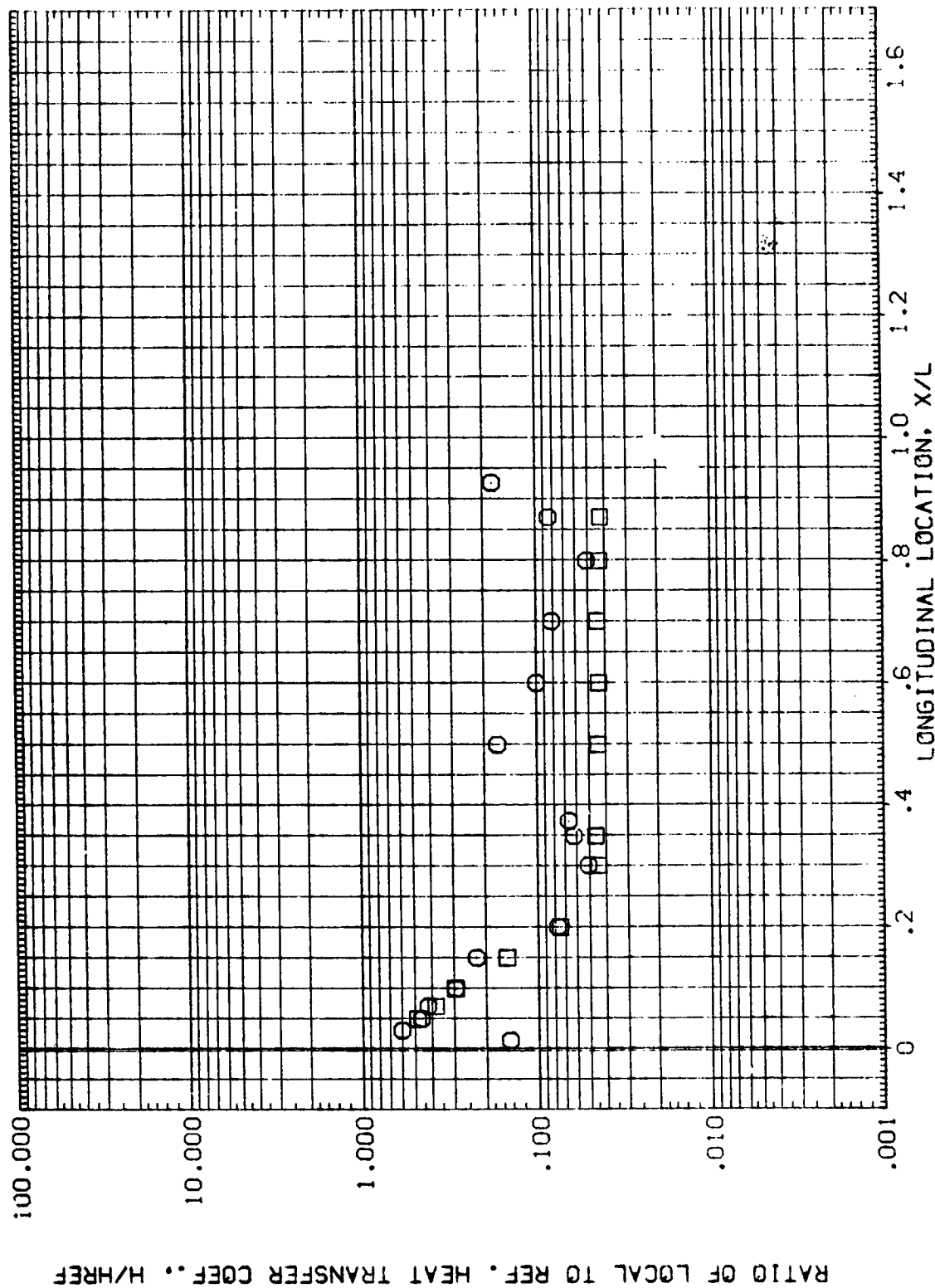


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700 PAGE 45

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (BNBF02)    O    1H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    5.000

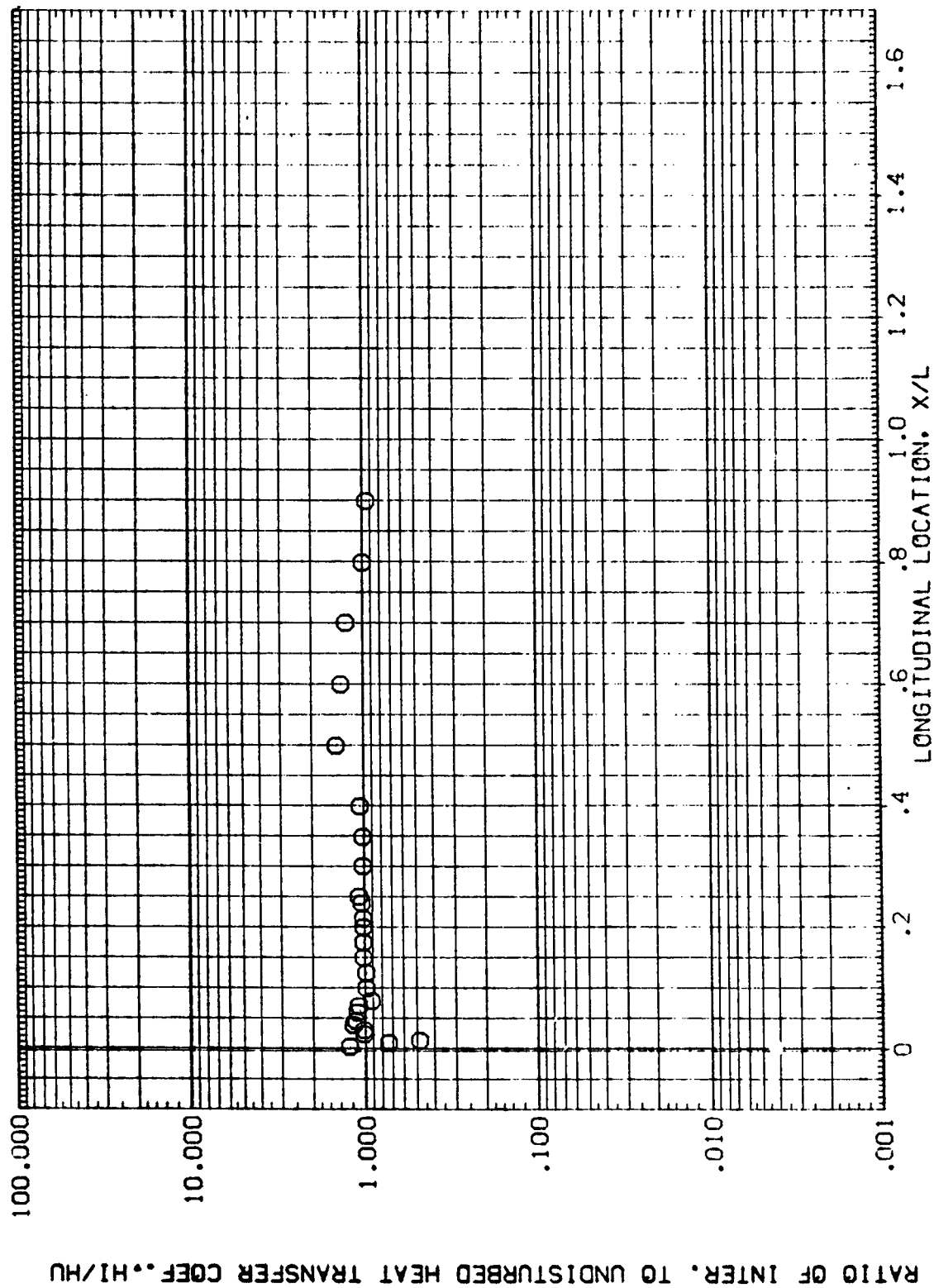


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = .000

DATA SET SYMBO: CONFIGURATION DESCRIPTION ALPHA BETA RN/L  
 (BMBF02) O IH-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA .000 .000 5.000

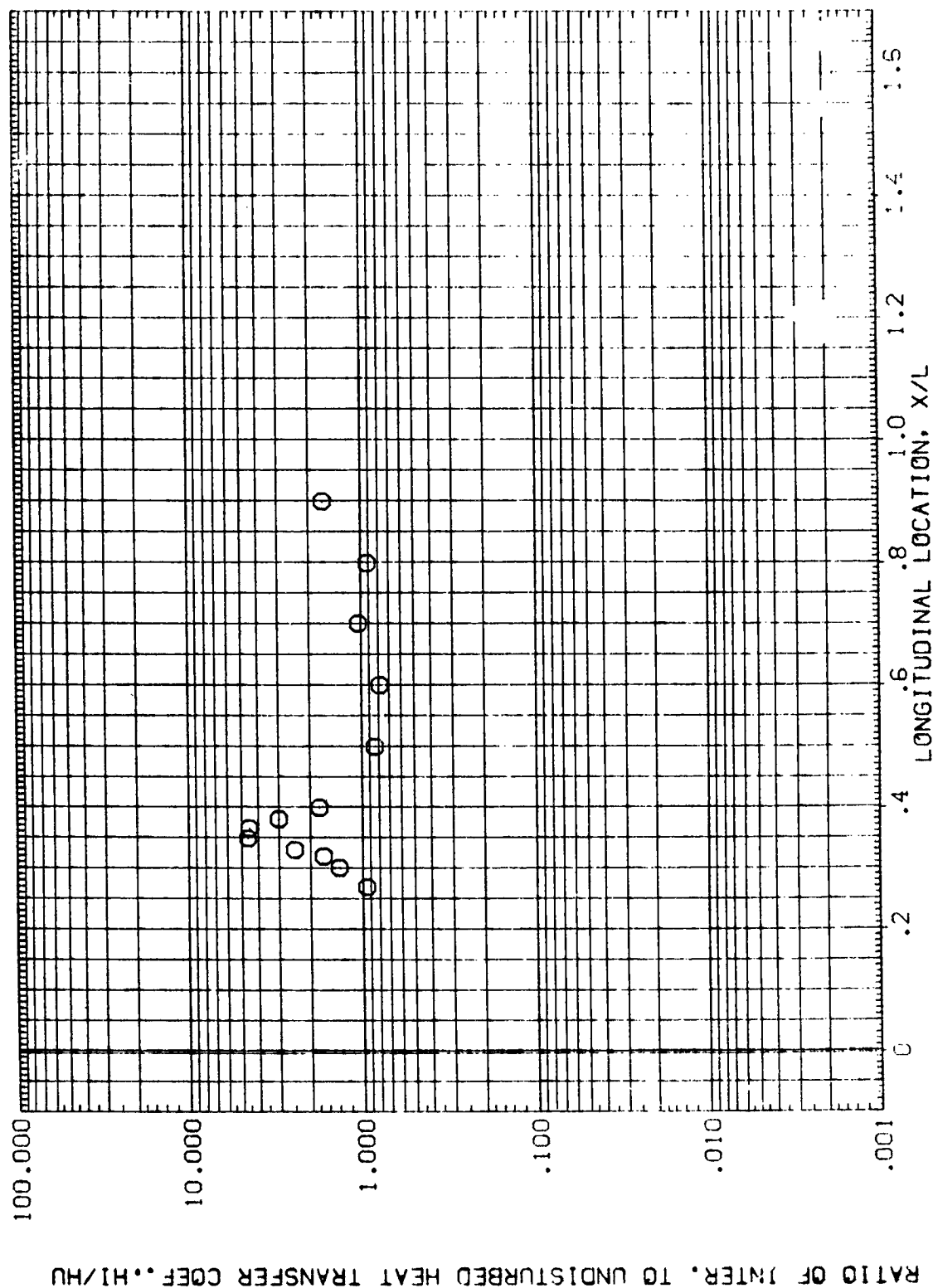


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HI = .900 PHI = 67.500 PAGE 48

DATA SET SYMBOL (BNBFO2) ○ CONFIGURATION DESCRIPTION 1H-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA ALPHA .000 BETA .000 RN/L 5.000

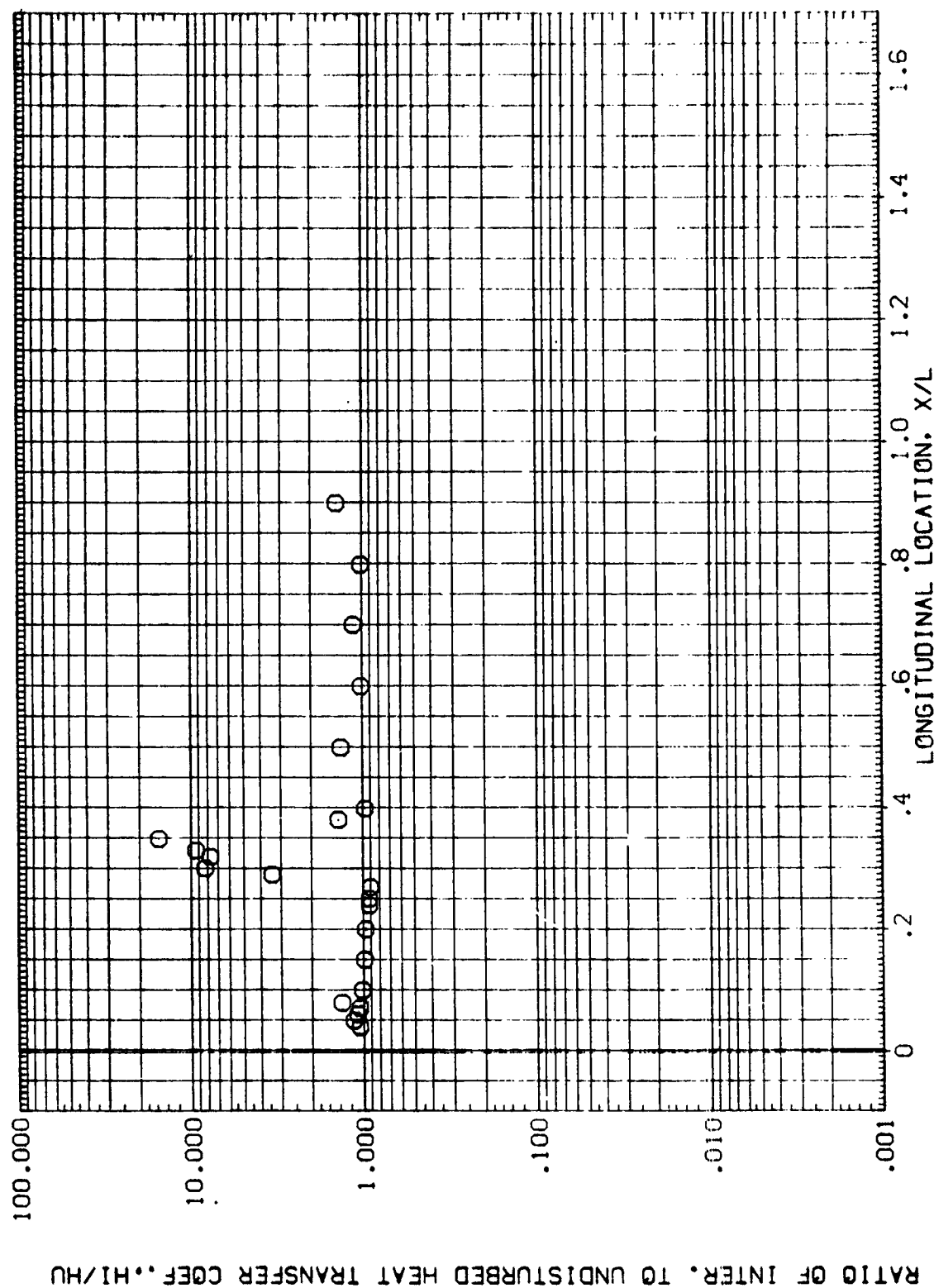


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (8N8F02)    O    1H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    5.000

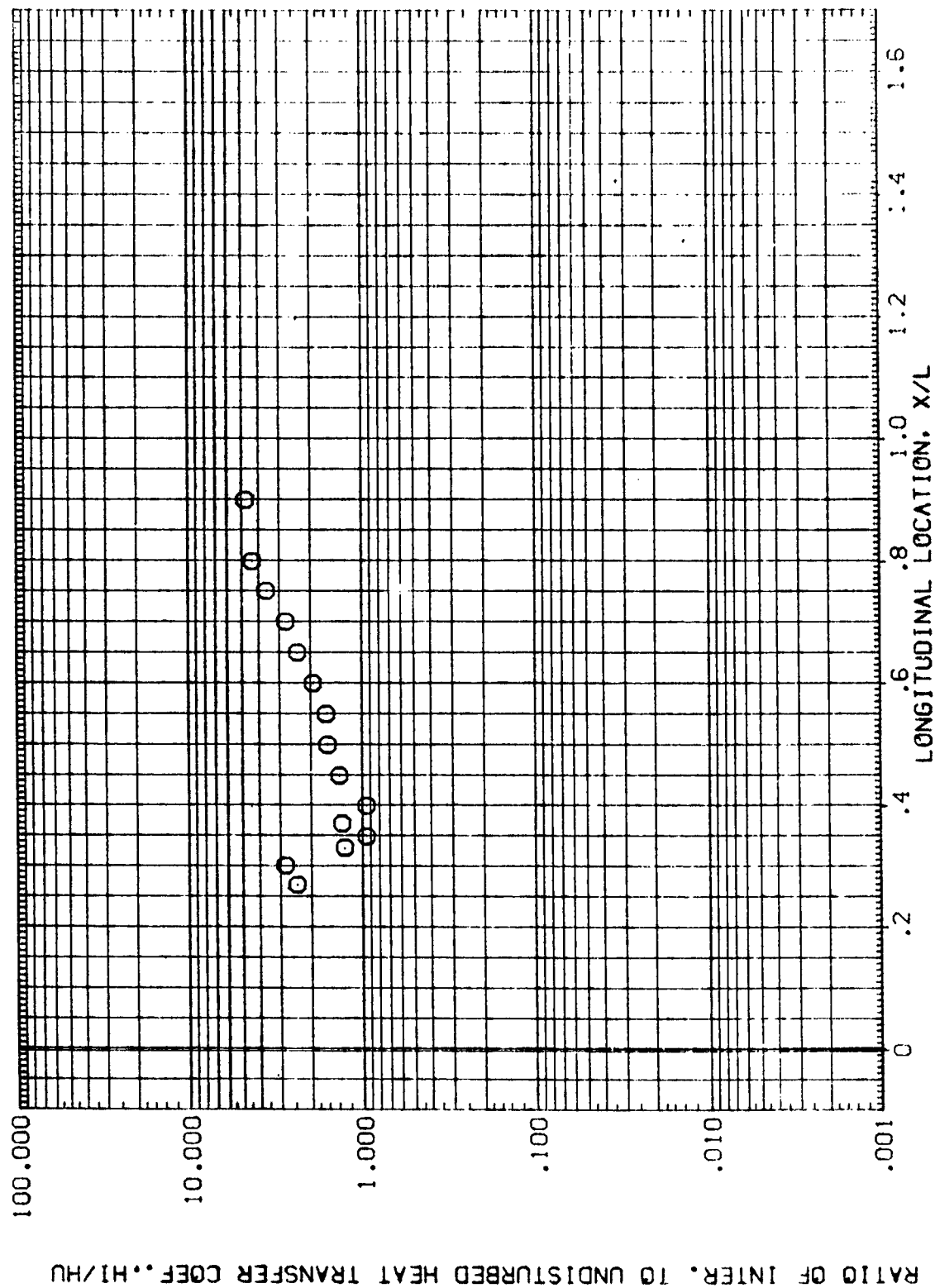


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 112.500



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(BNBFO2)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    5.000

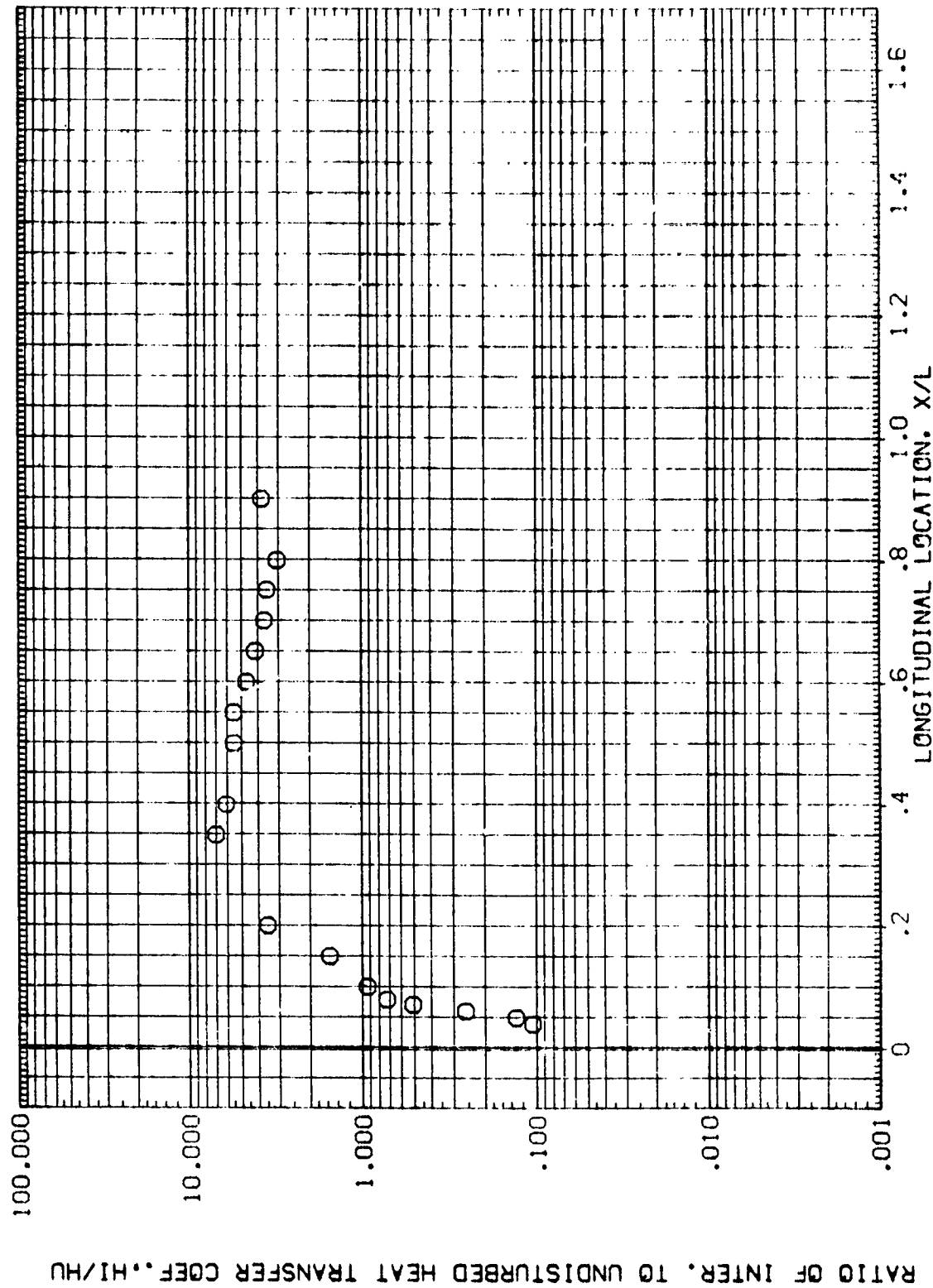


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L  
(BNBF02)    ○    1H-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA    .000    .000    5.000

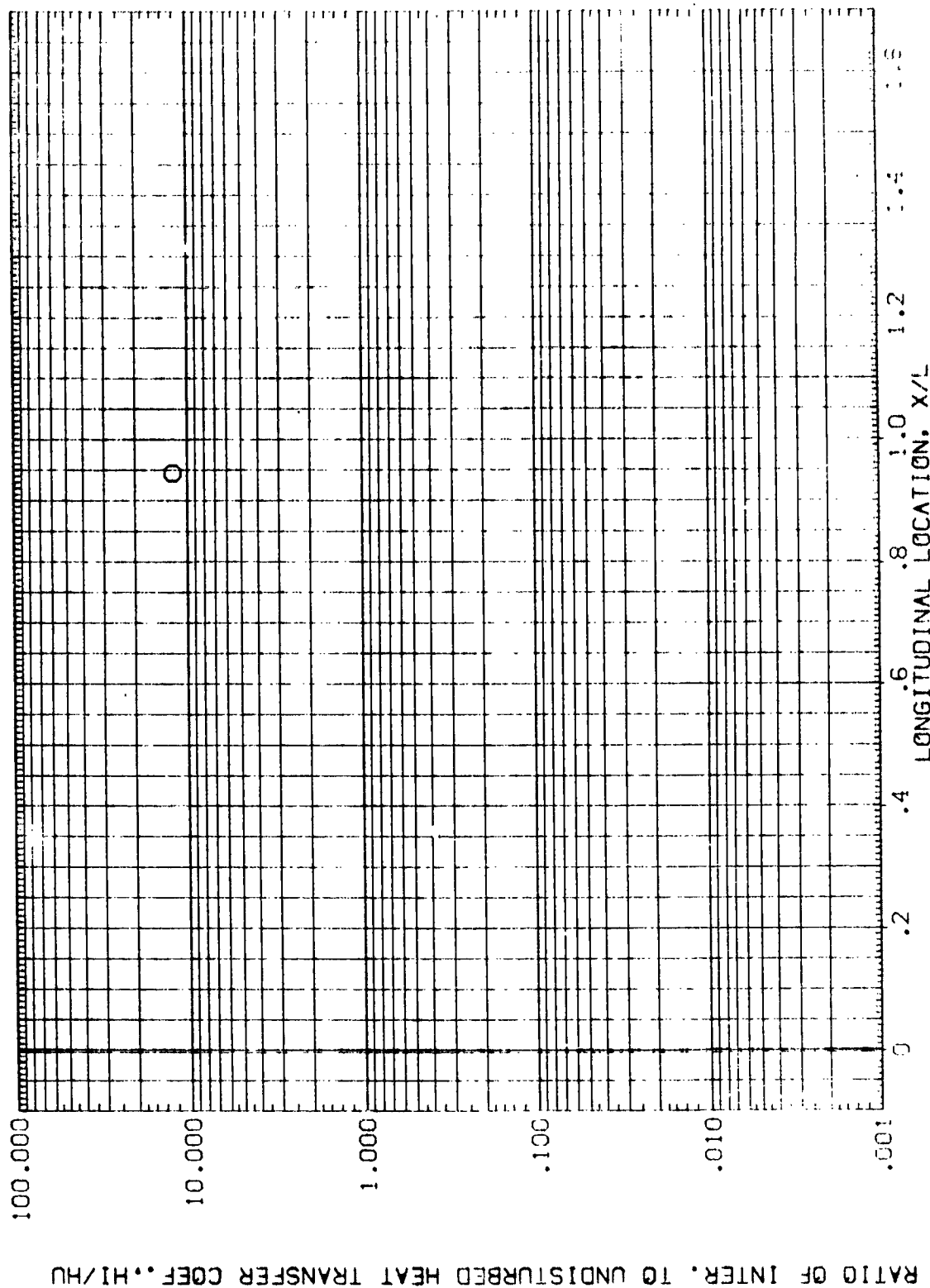


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 154.980

DATA SET SYMBOL (B10F02) ○ IH-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA ALPHA .000 BETA .000 RN/L 5.000

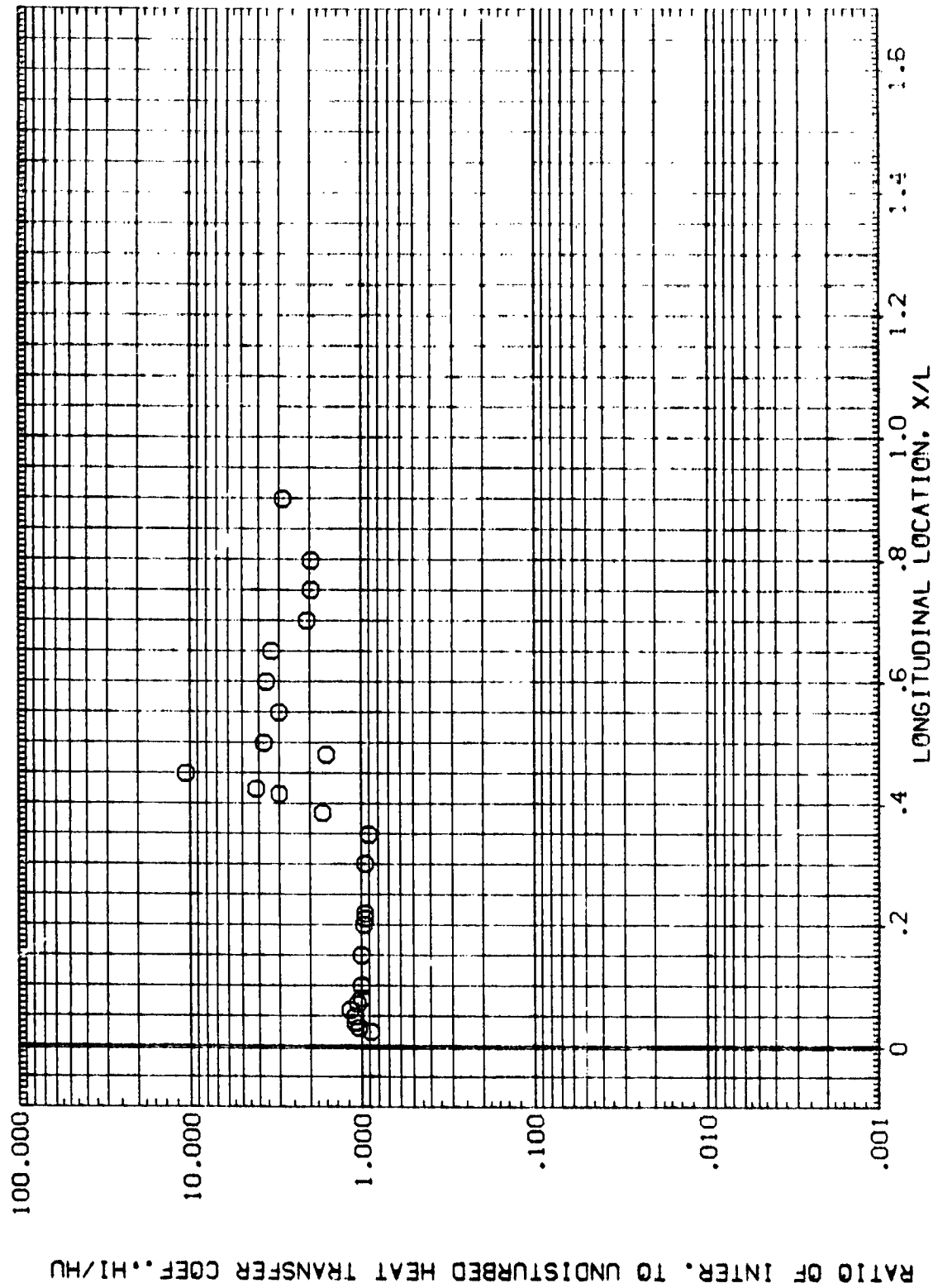


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RM/L

(8HBF02)    O    IH-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA    .000    .000    5.000

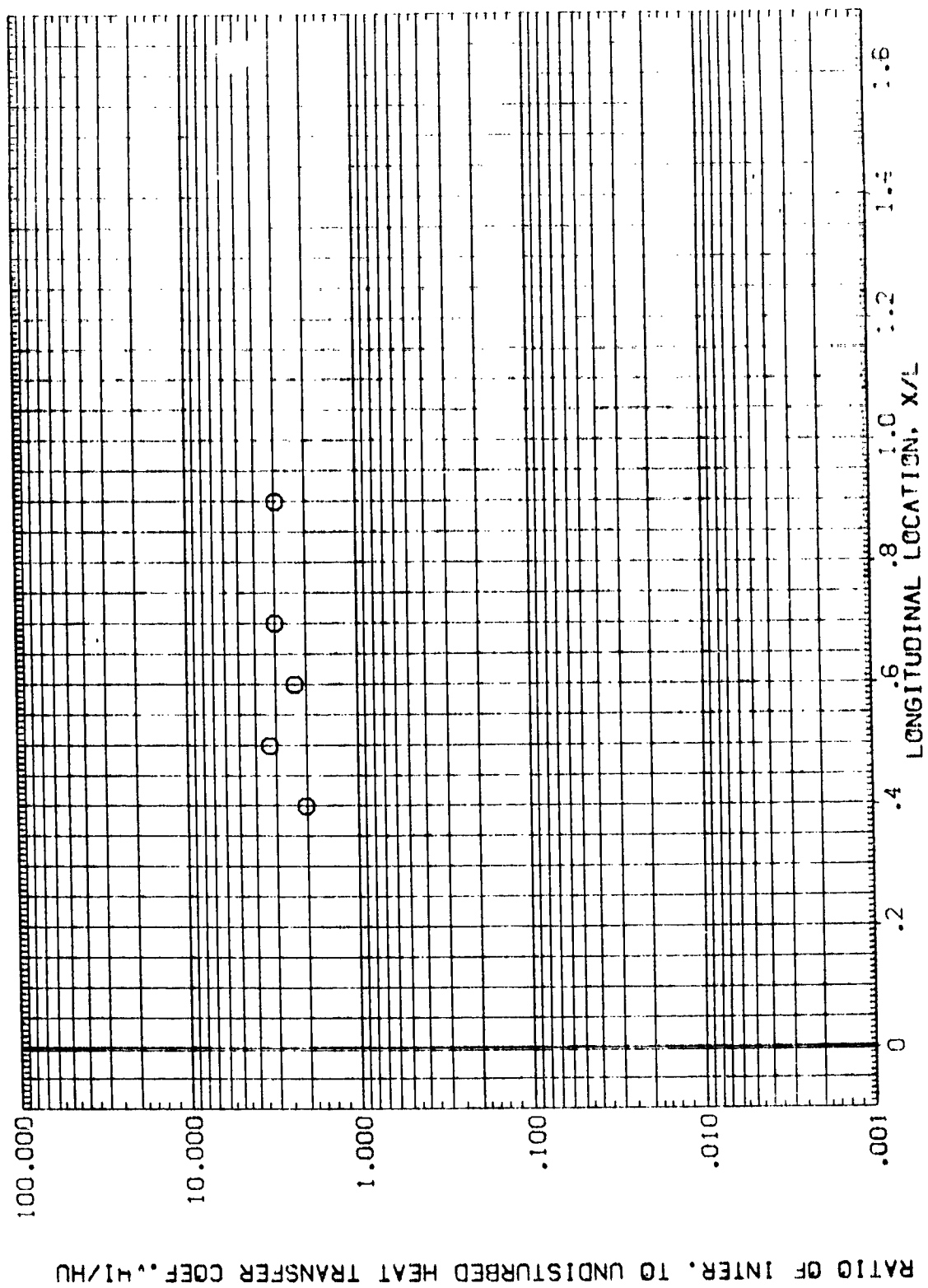


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TALKY

MACH = 5.300    HAW/HT = .900    PHI = 191.250    PAGE 54

DATA SET SYMBOL (BIBF02)  $\circ$  CONFIGURATION DESCRIPTION IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA .000 BETA .000 RM/L 5.000

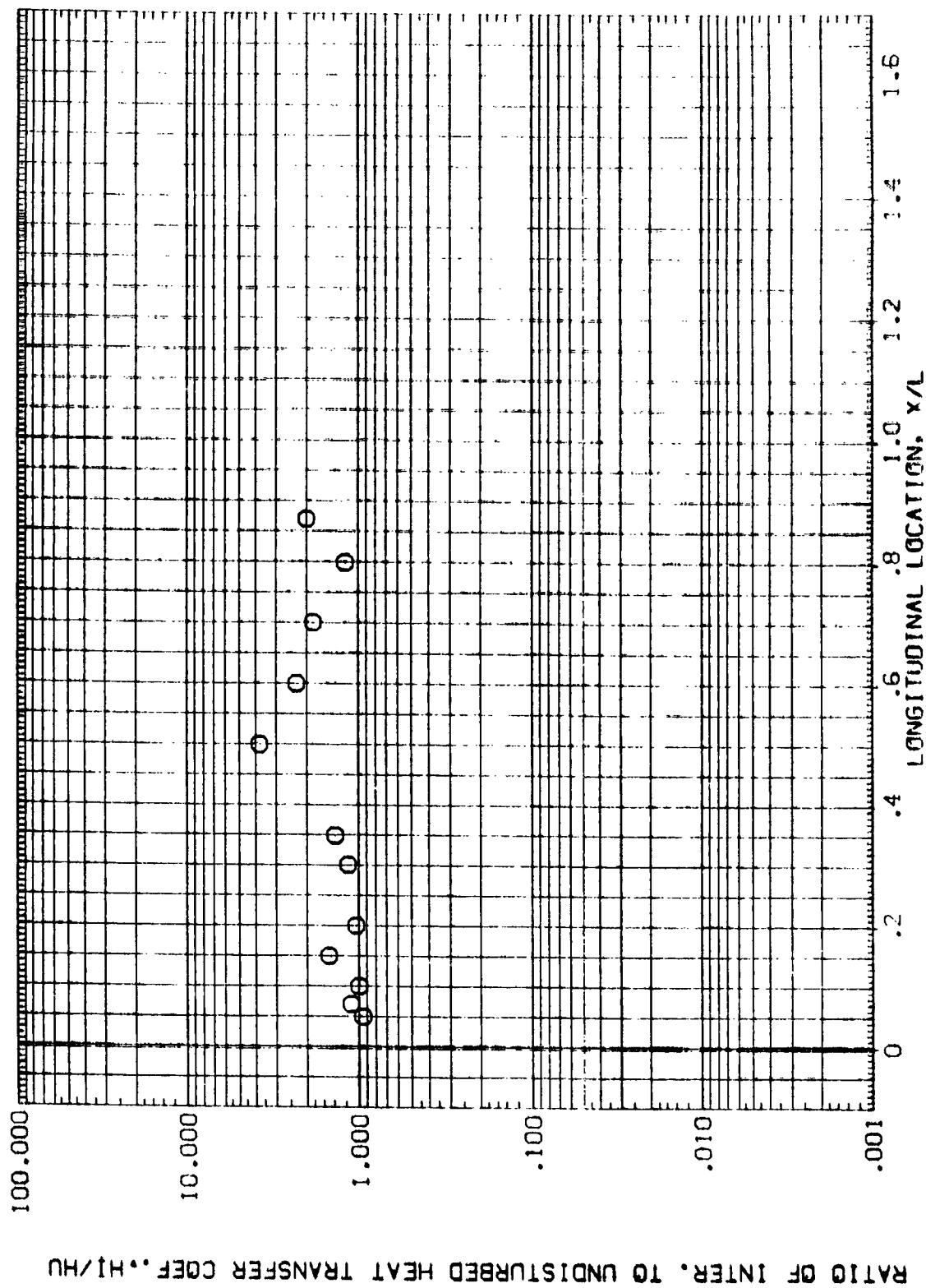


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNF03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RBF18)      ARC3.5-211(IH48)ET/NIPPLE/CLEAN EXT TANK

ALPHA      BETA      RM/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000

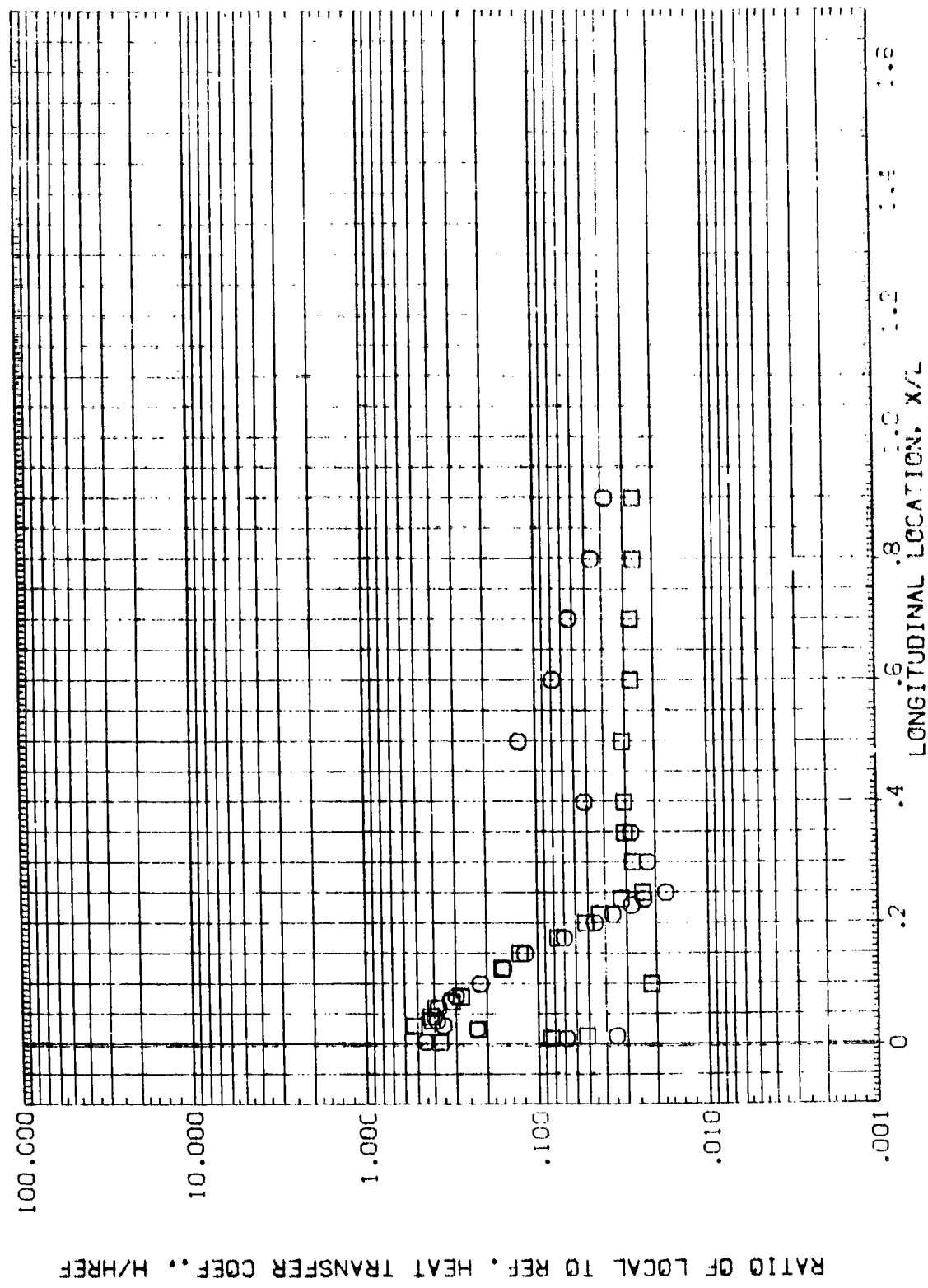


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PH = .000      PAGE 55

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      R<sub>W</sub>/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(G-S) EXT TANK      -5.000      .000      5.000  
 (RNBFI8)      DATA NOT AVAILABLE      -5.000      .000      5.000

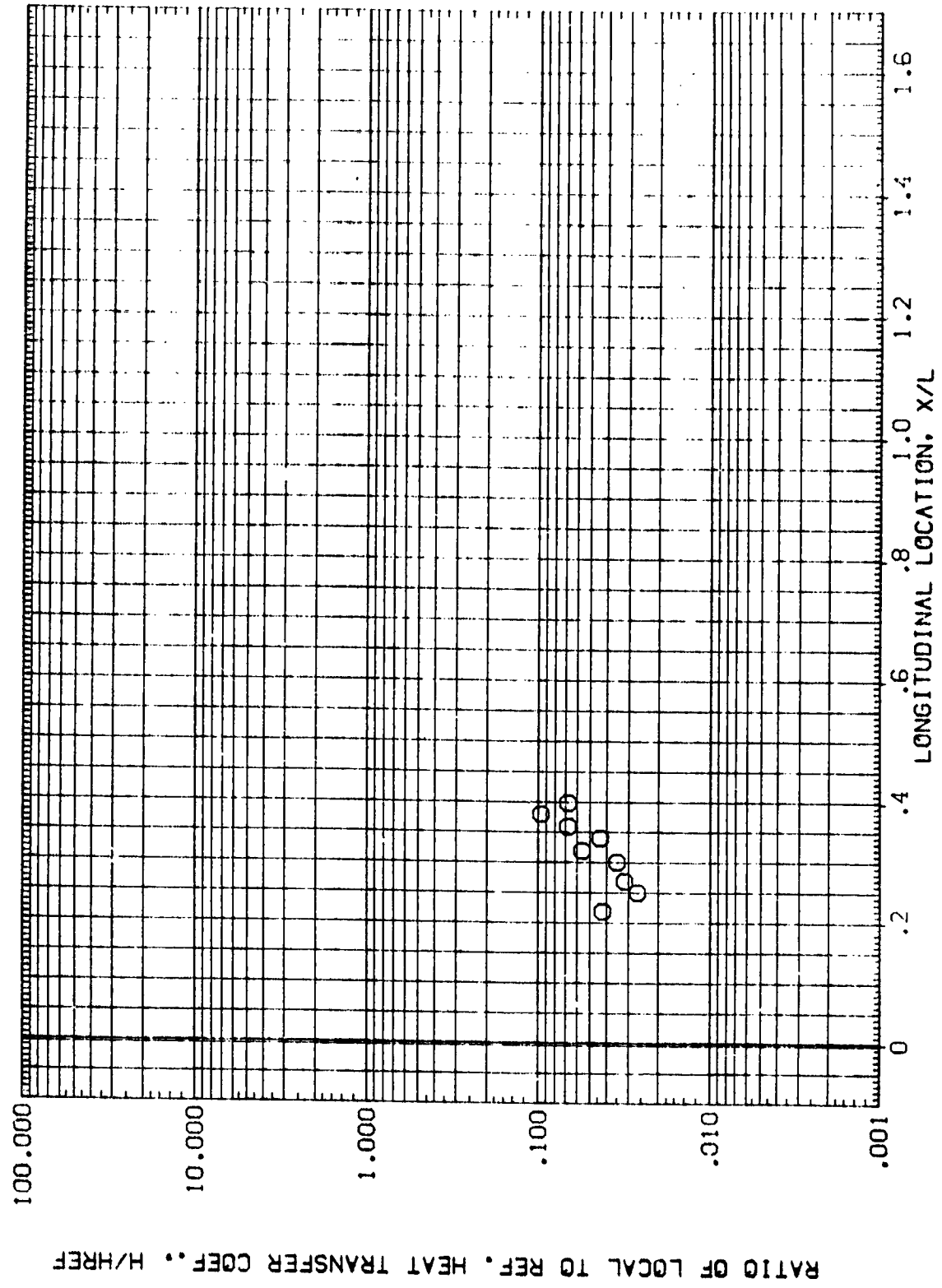


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFC3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      EXT TANK      -5.000      .000      5.000  
 (RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      EXT TANK      -5.000      .000      5.000

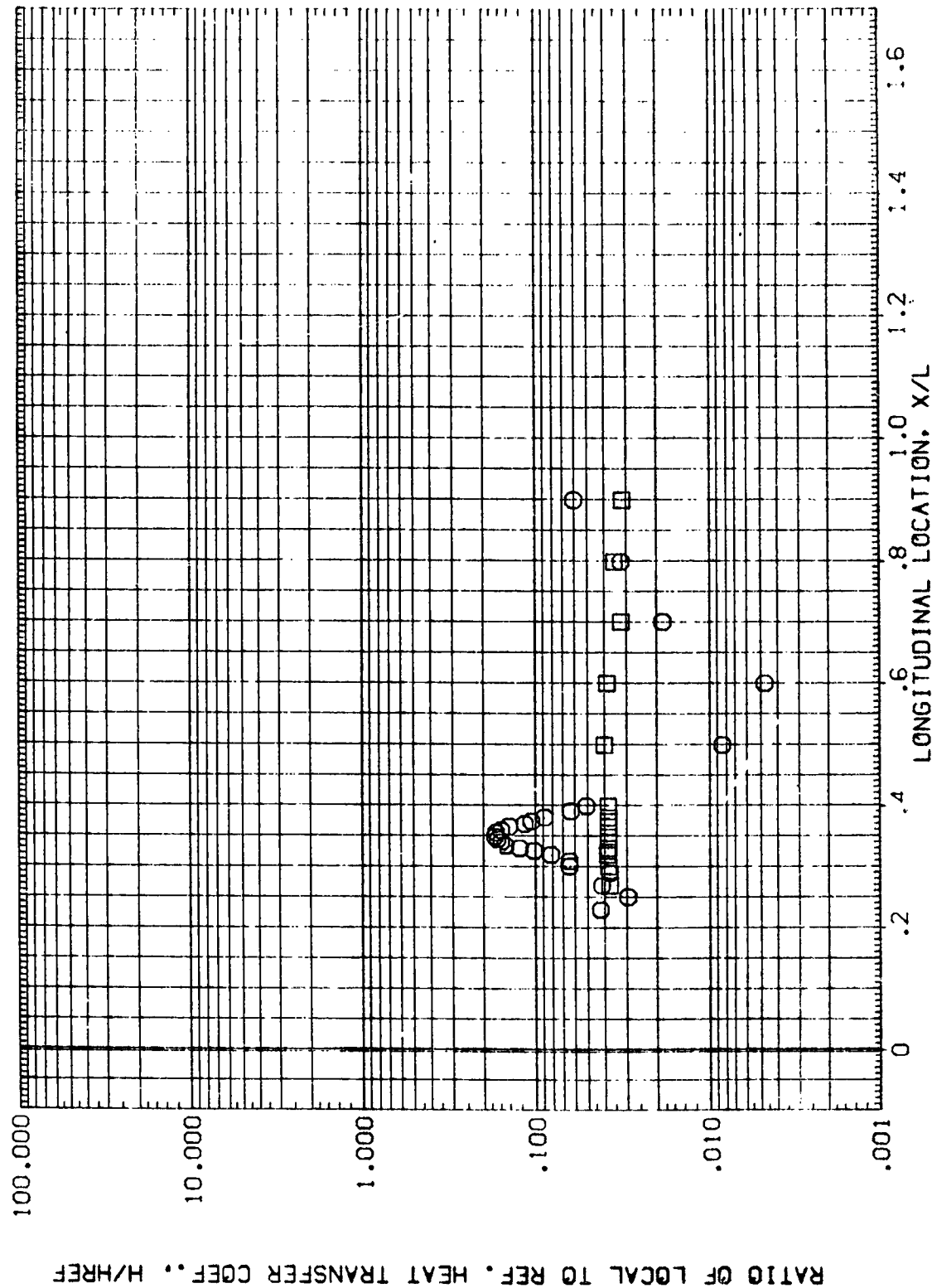


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 67.500



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000  
 (RNBFT8)      DATA NOT AVAILABLE

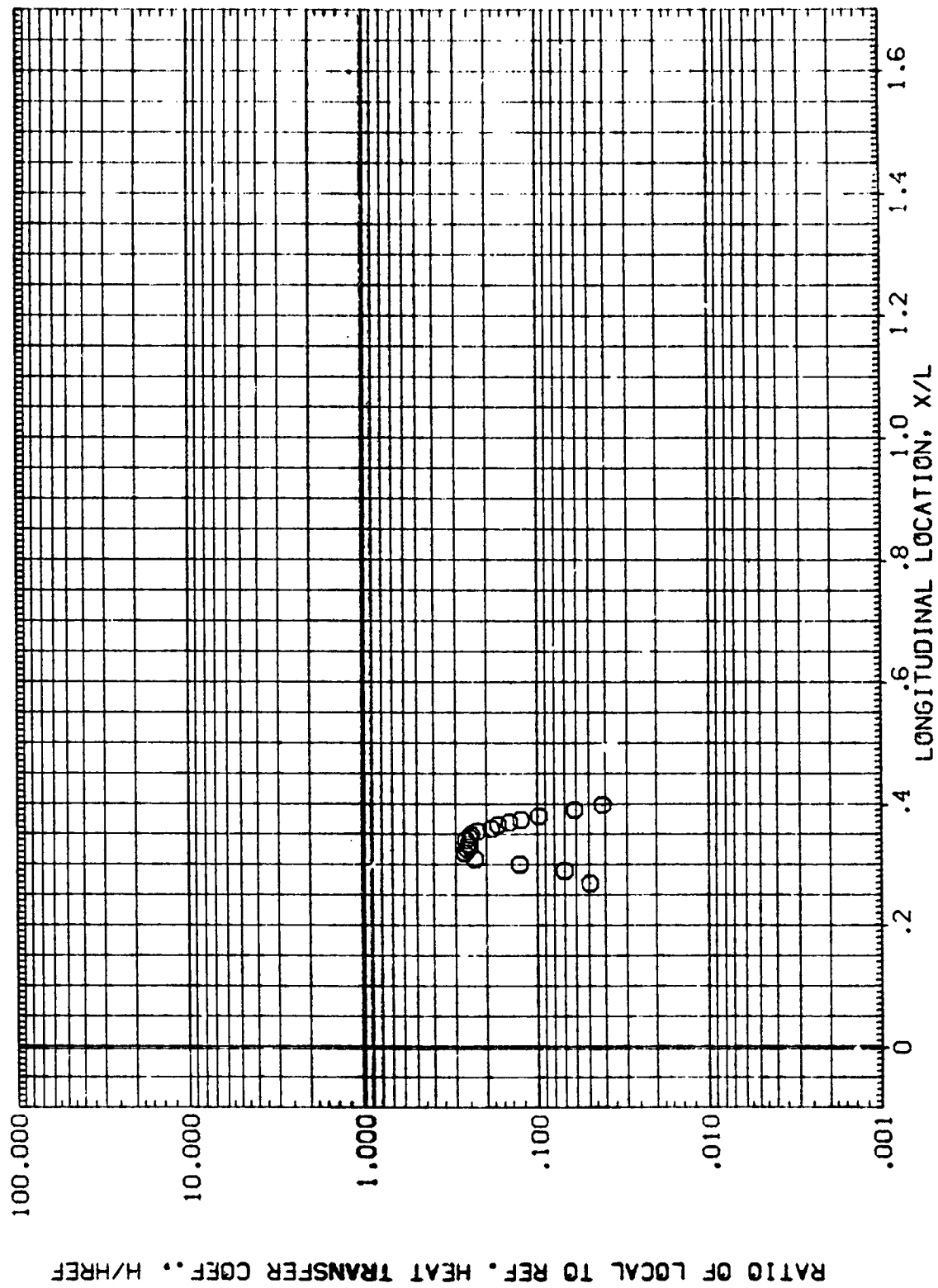


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 78.000

DATA SET SYMBOL (RNBFO3) (RNBFI8) CONFIGURATION DESCRIPTION ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK EXT TANK ALPHA -5.000 -5.000 BETA .000 .000 RN/L 5.000 5.000

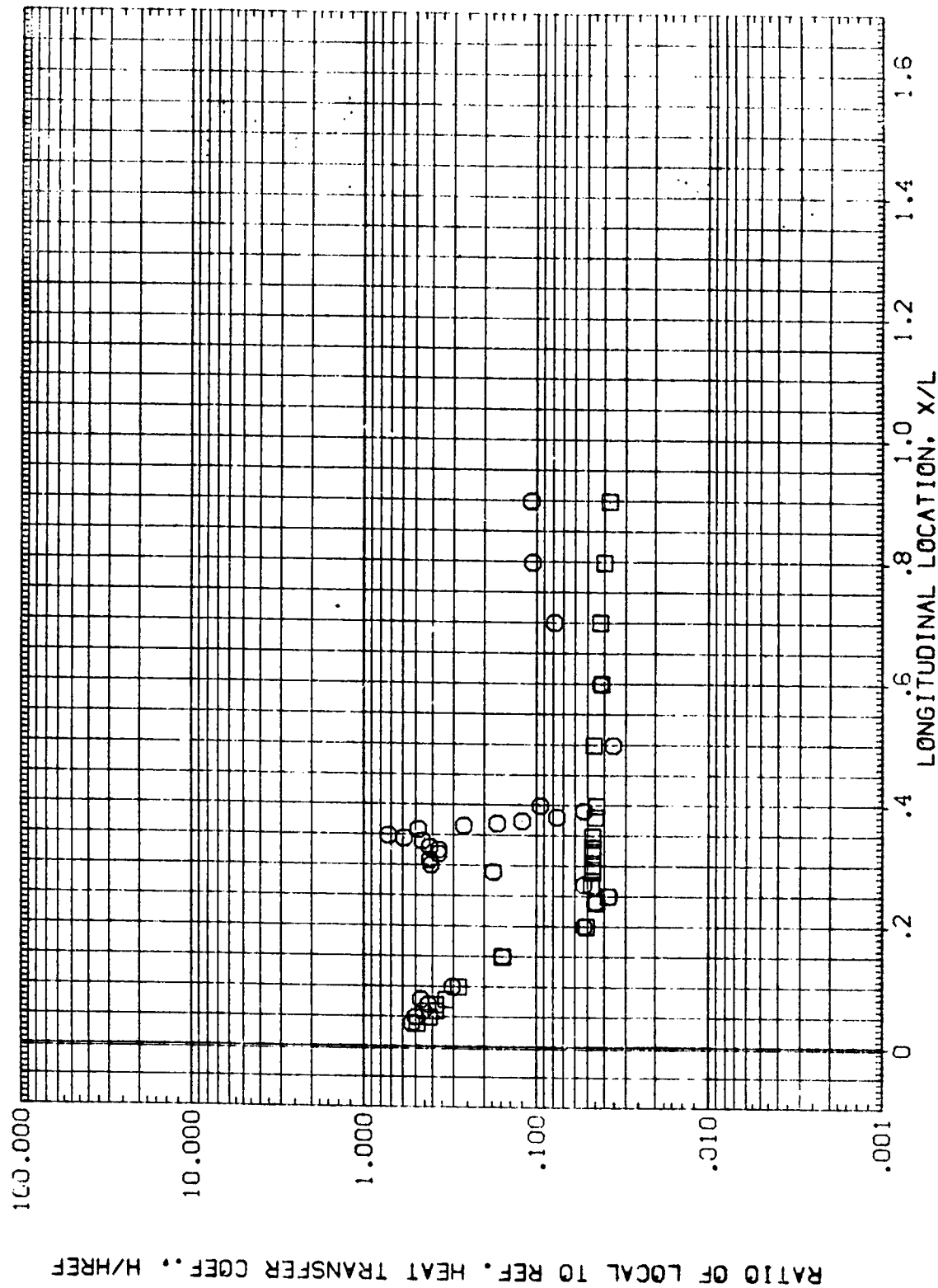


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      EXT TANK      -5.000      .000      5.000

(RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      EXT TANK      -5.000      .000      5.000

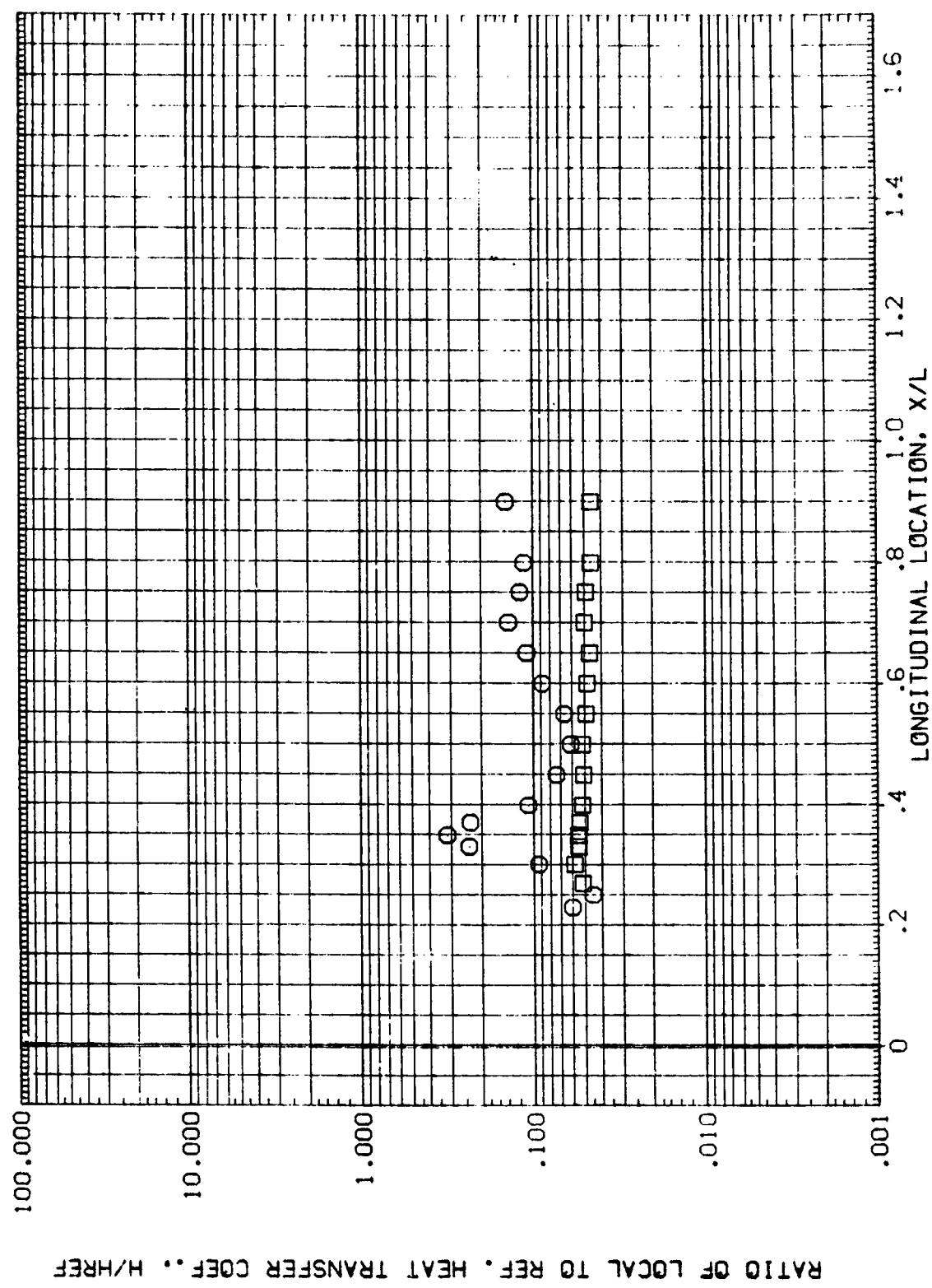


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (PNBF03) ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBF18) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

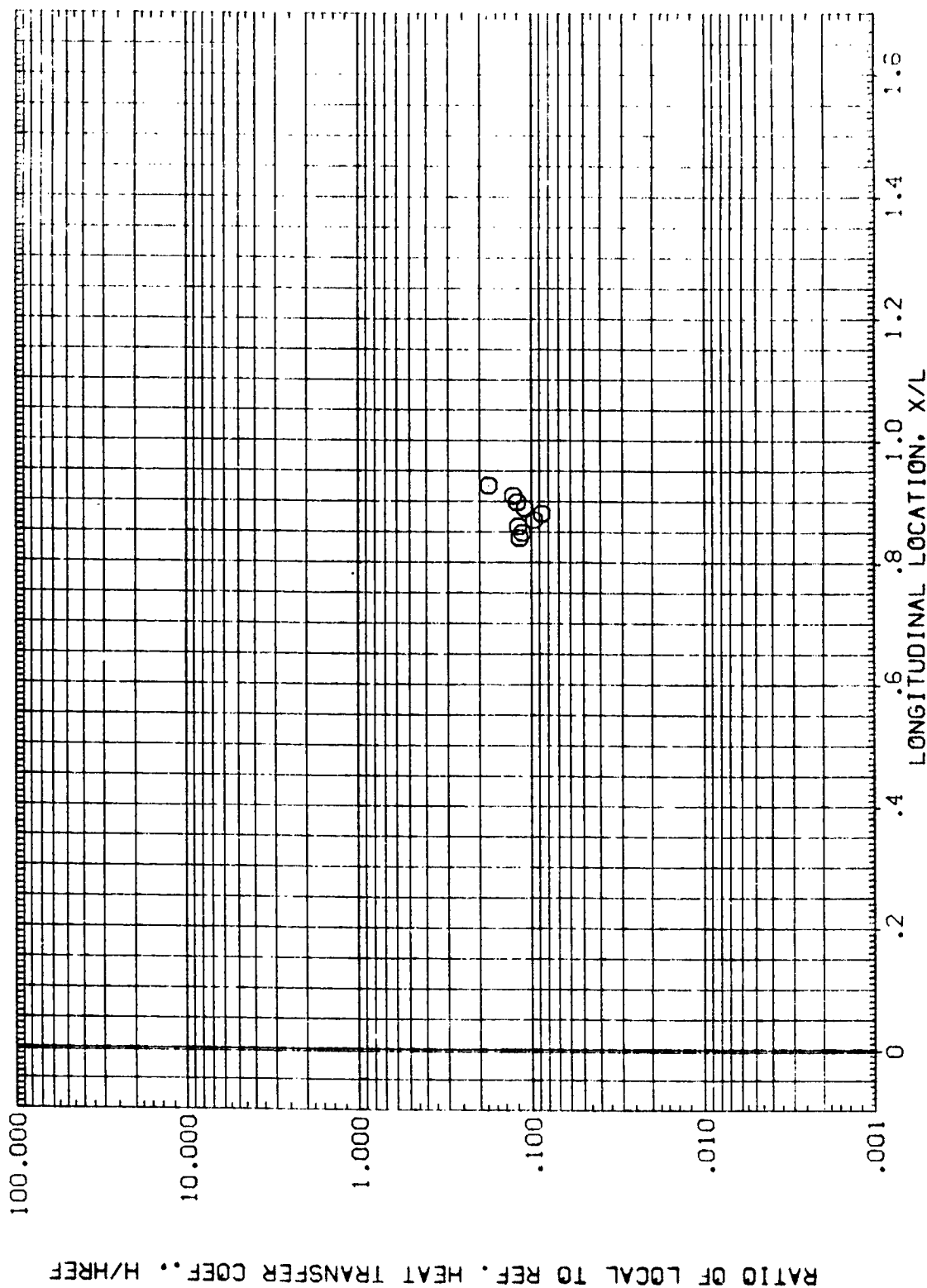


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFO3)    ARC3.5-211(IH48)JTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI8)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 -5.000    .000    5.000  
 -5.000    .000    5.000

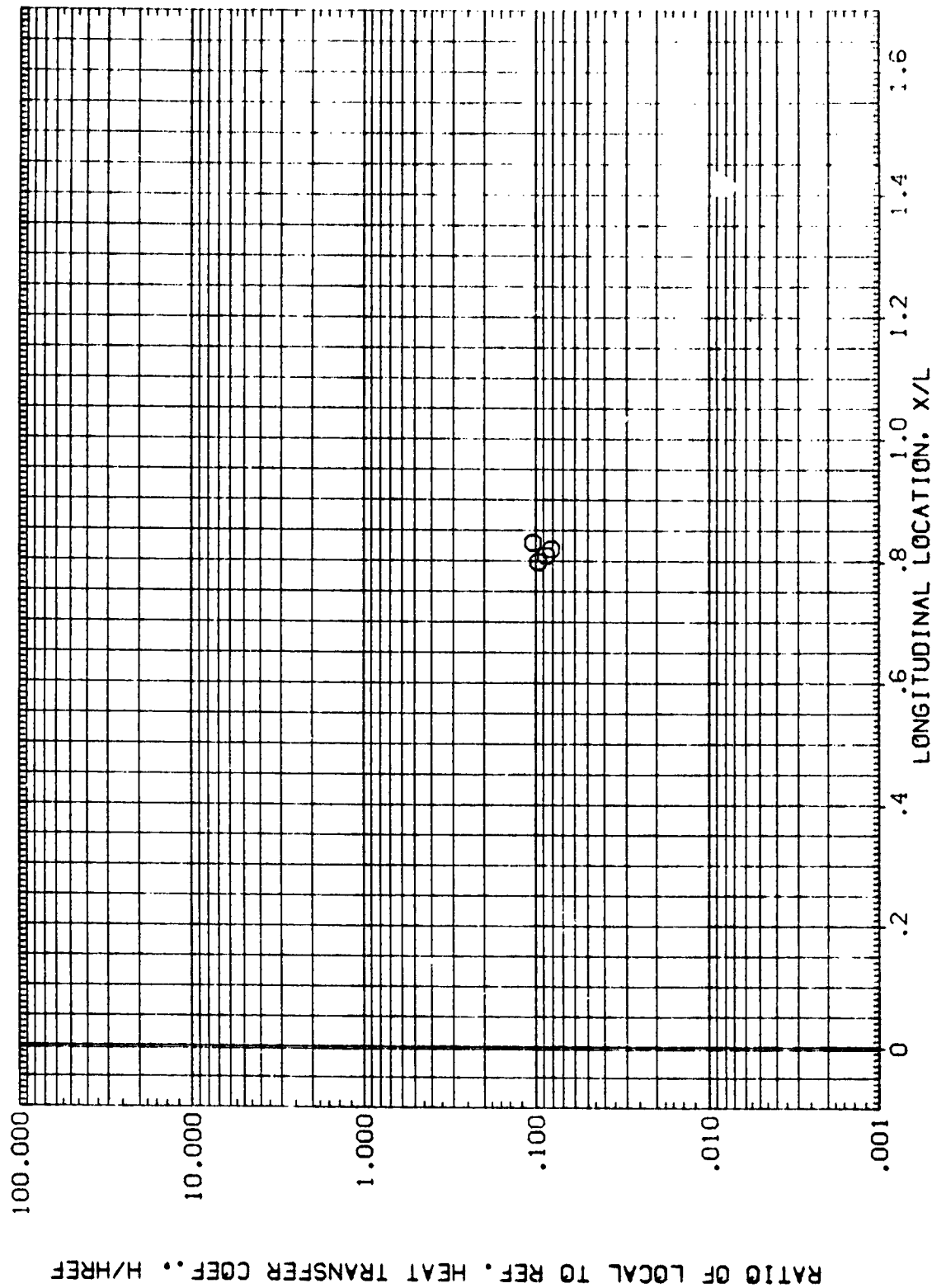


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 129.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RN/L

(RNBFO3) ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

(RNBFI8) ARC3-5-211(IH48)ET /NIPPLE/CLEAN EXT TANK

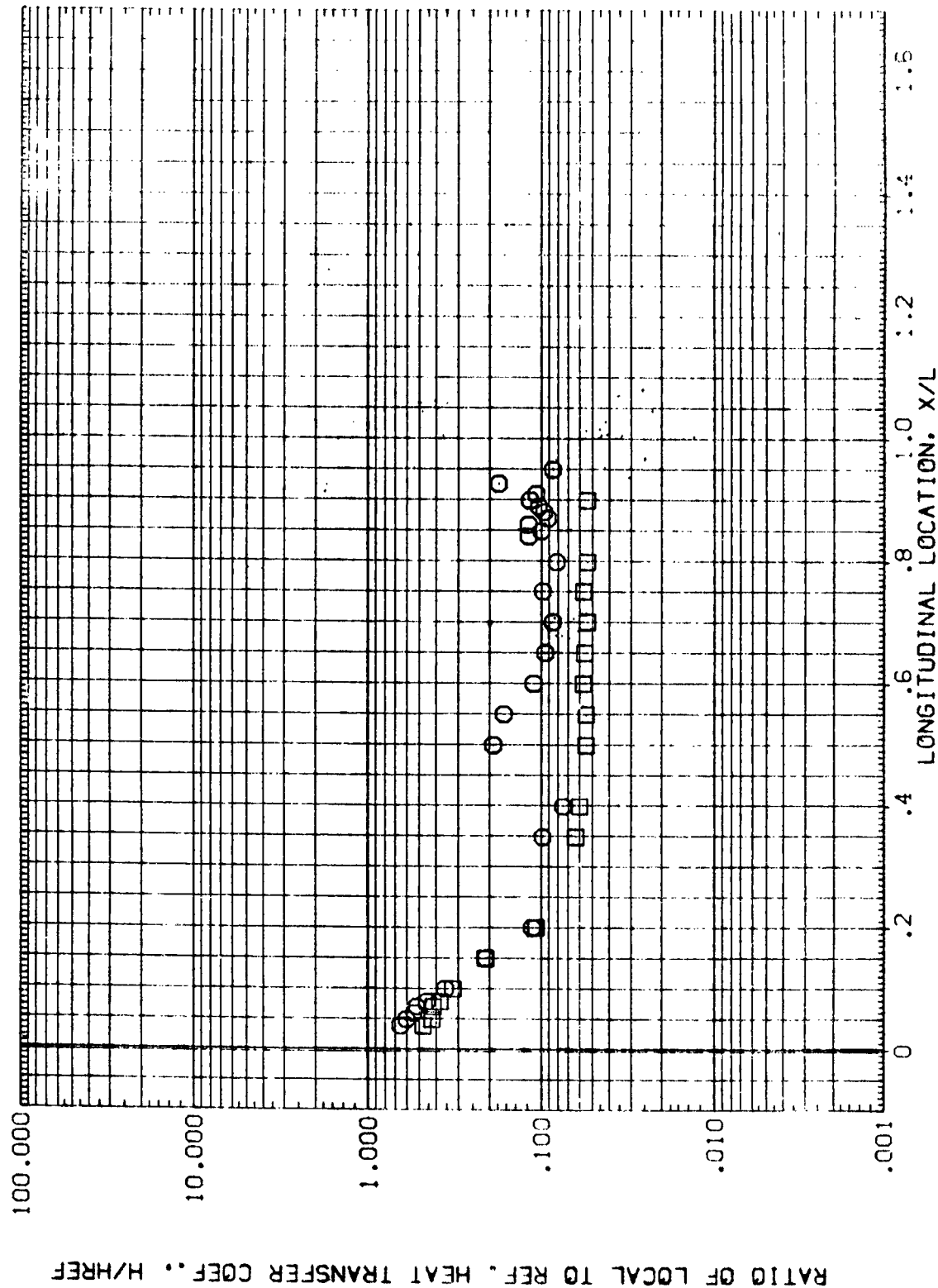


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFO3)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI8)    DATA NOT AVAILABLE

ALPHA    BETA    RV/L  
 -5.000    .000    5.000  
 -5.000    .000    5.000

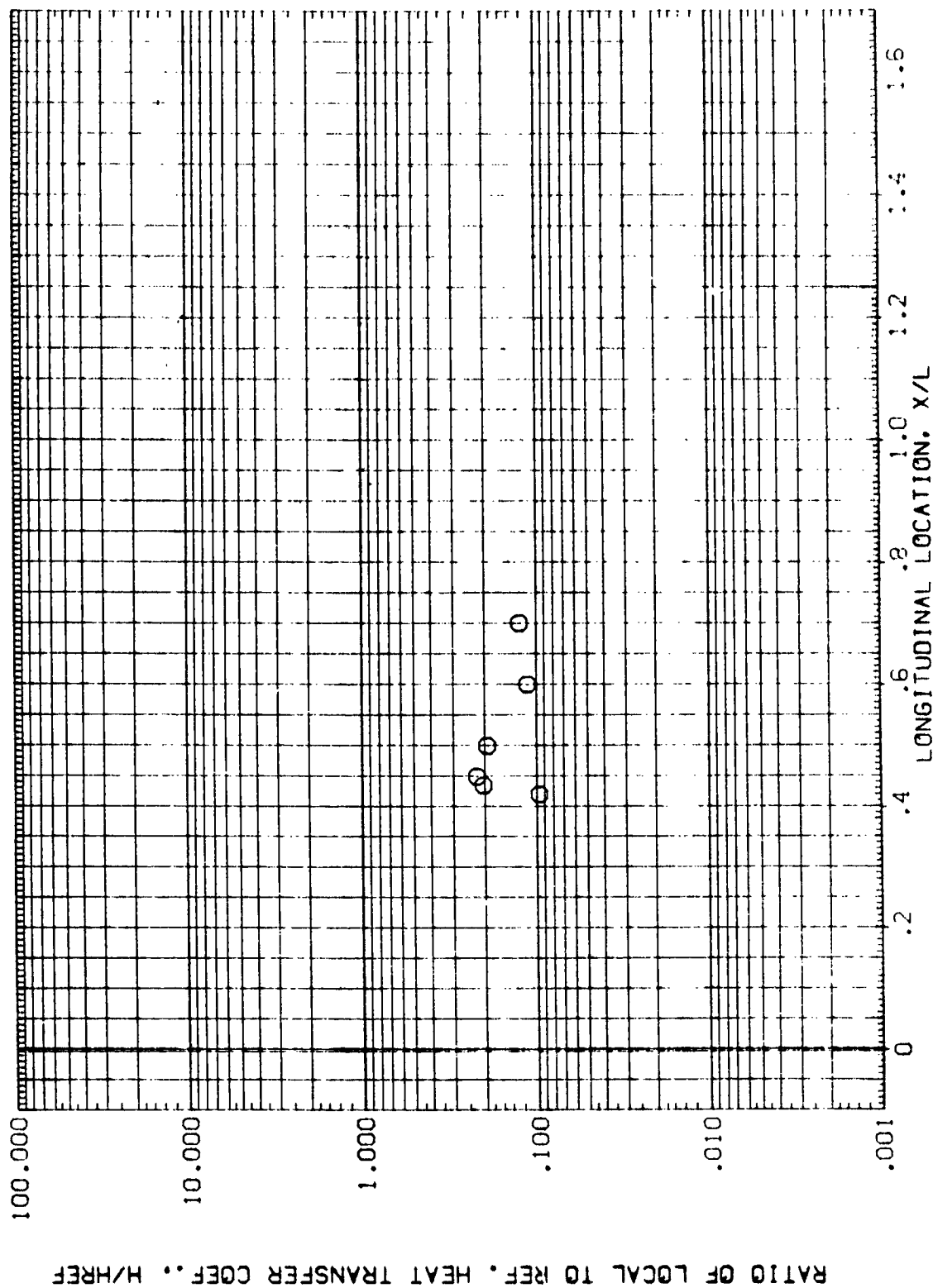


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RBF03)

(RBF16)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(B+S)

ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK

EXT TANK

ALPHA

-5.000

-5.000

BETA

.000

.000

RW

5.000

5.000

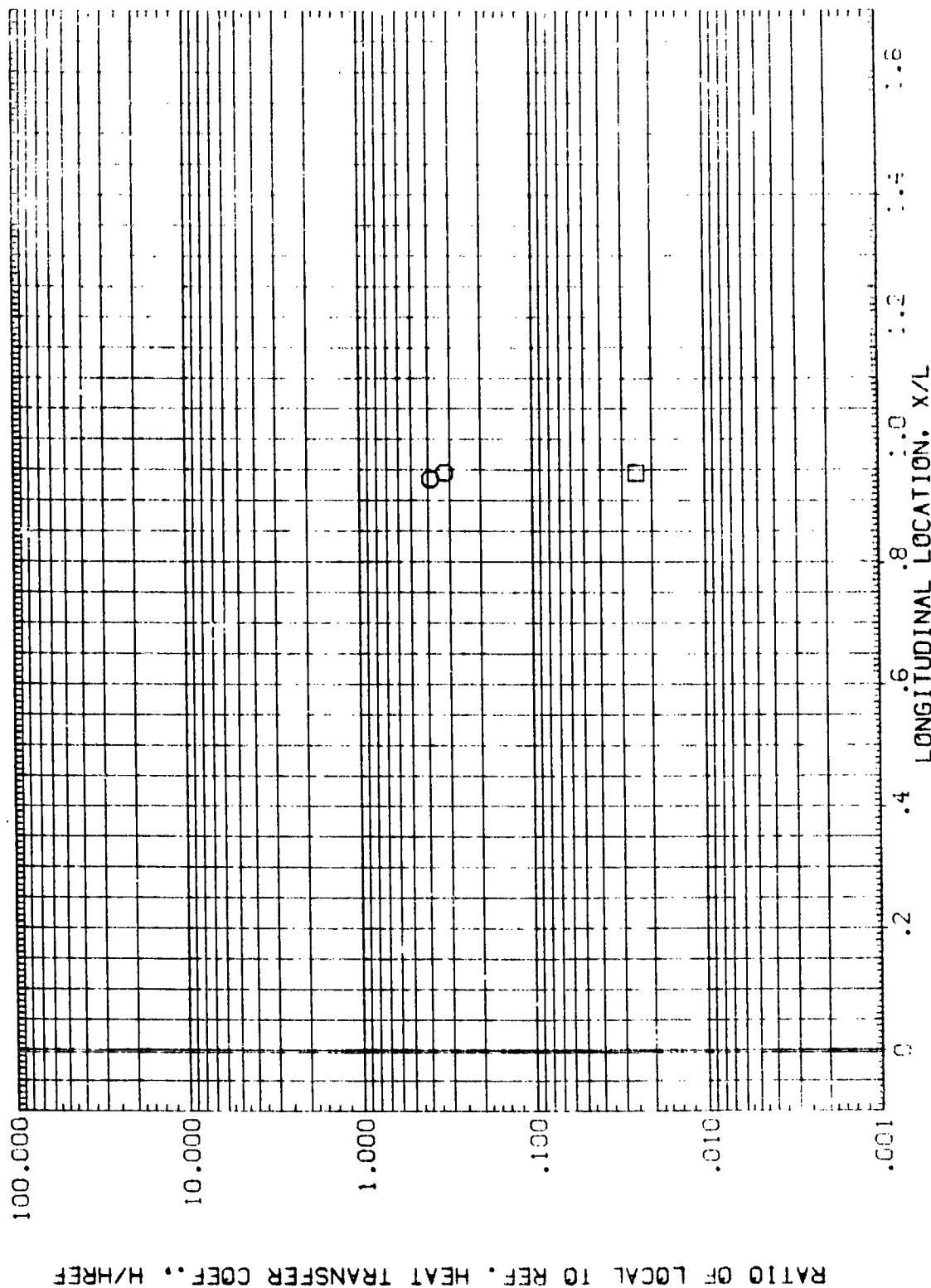


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RV/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EAT TANK      -5.000      .000      5.000  
 (RNBFI8)      DATA NOT AVAILABLE      -5.000      .000      5.000

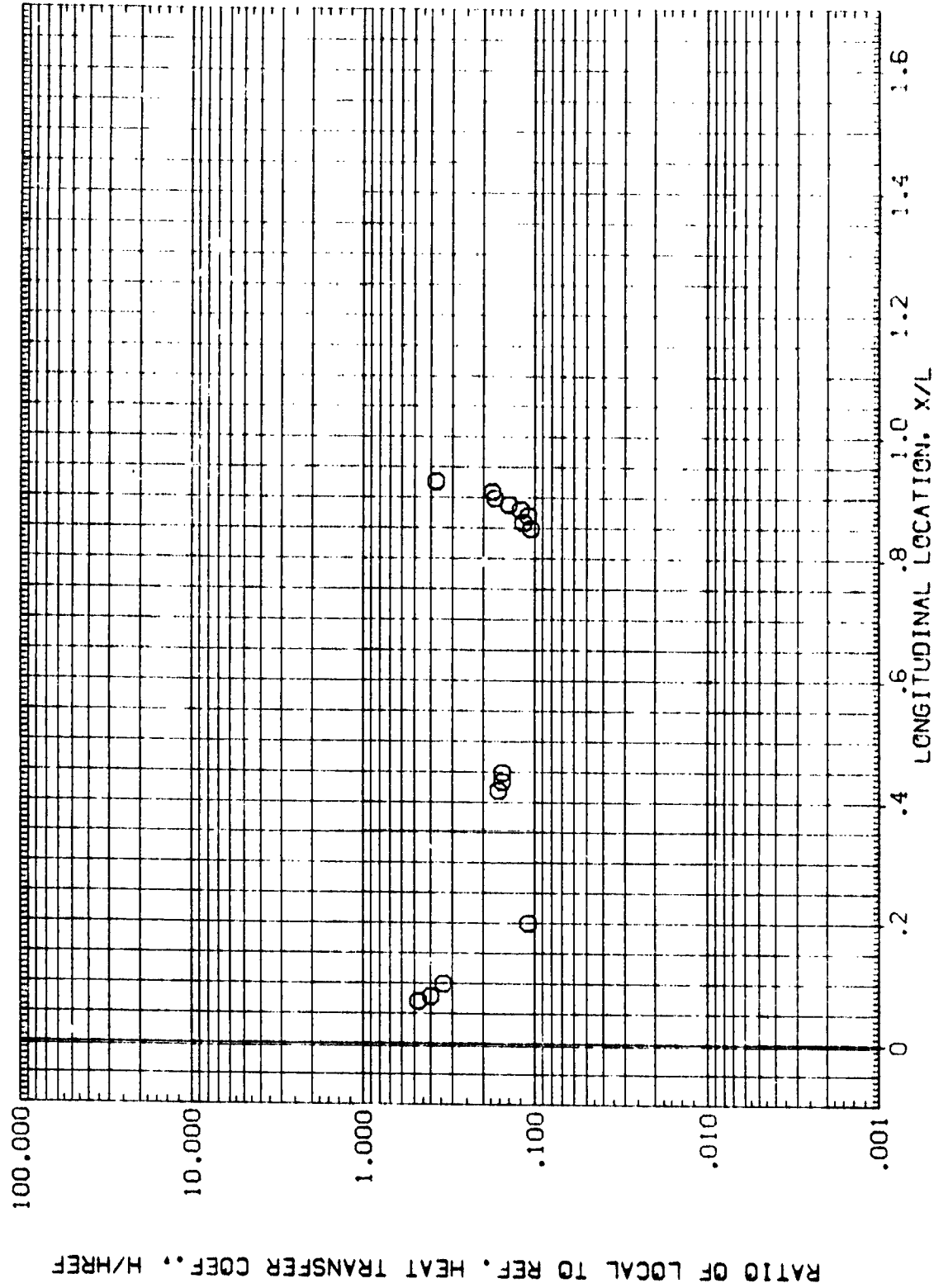



FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 157.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO3)  ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFI8) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

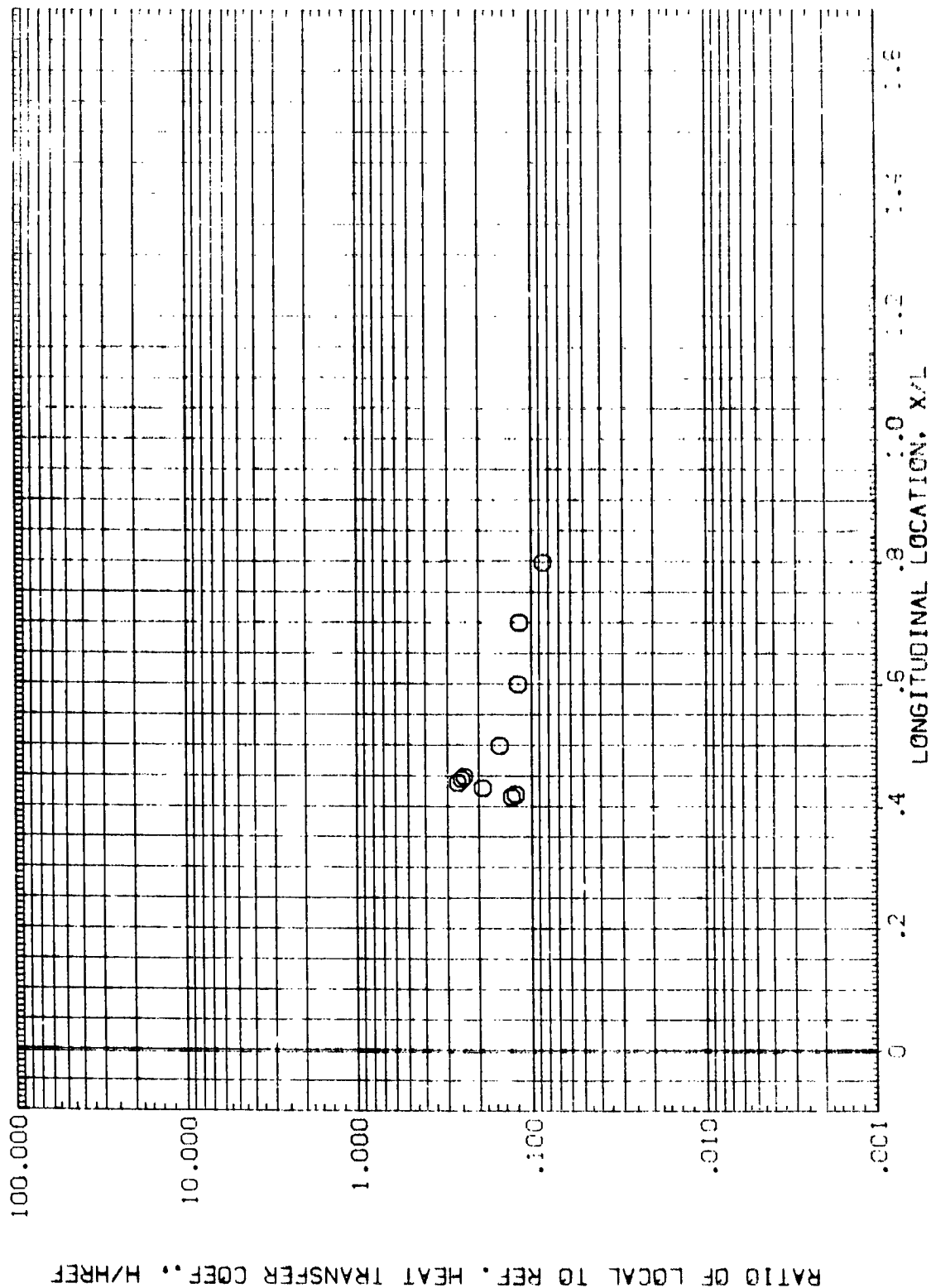


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.120 Page 58

DATA SET SYMBOL  
(RNF03)  
(RNF18)

CONFIGURATION DESCRIPTION  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0.5) EXT TANK  
DATA NOT AVAILABLE

ALPHA BETA R<sub>u</sub>/L  
-5.000 .000 5.000  
-5.000 .000 5.000

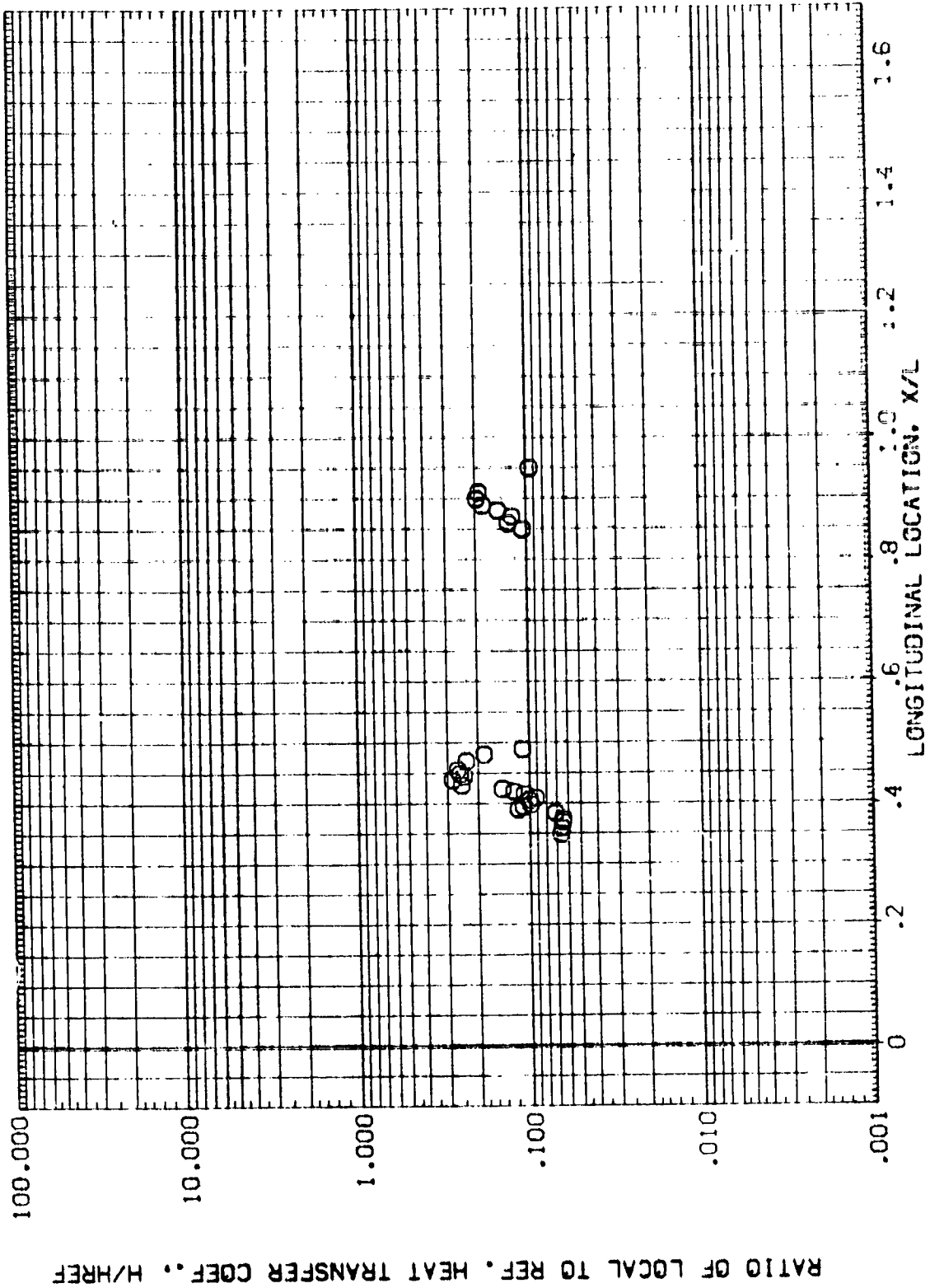


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P41 = 168.000

DATA SET SYMBOL: **Q** CONFIGURATION DESCRIPTION: ARC3.5-211(IH48)OTS/NIPPLE/P/ATRIIP(O+S) EXT TANK ALPHA: -5.000 BETA: .000 R<sub>N</sub>: 5.000  
 (RNBFC3) ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK ALPHA: -5.000 BETA: .000 R<sub>N</sub>: 5.000  
 (RNBFC18)

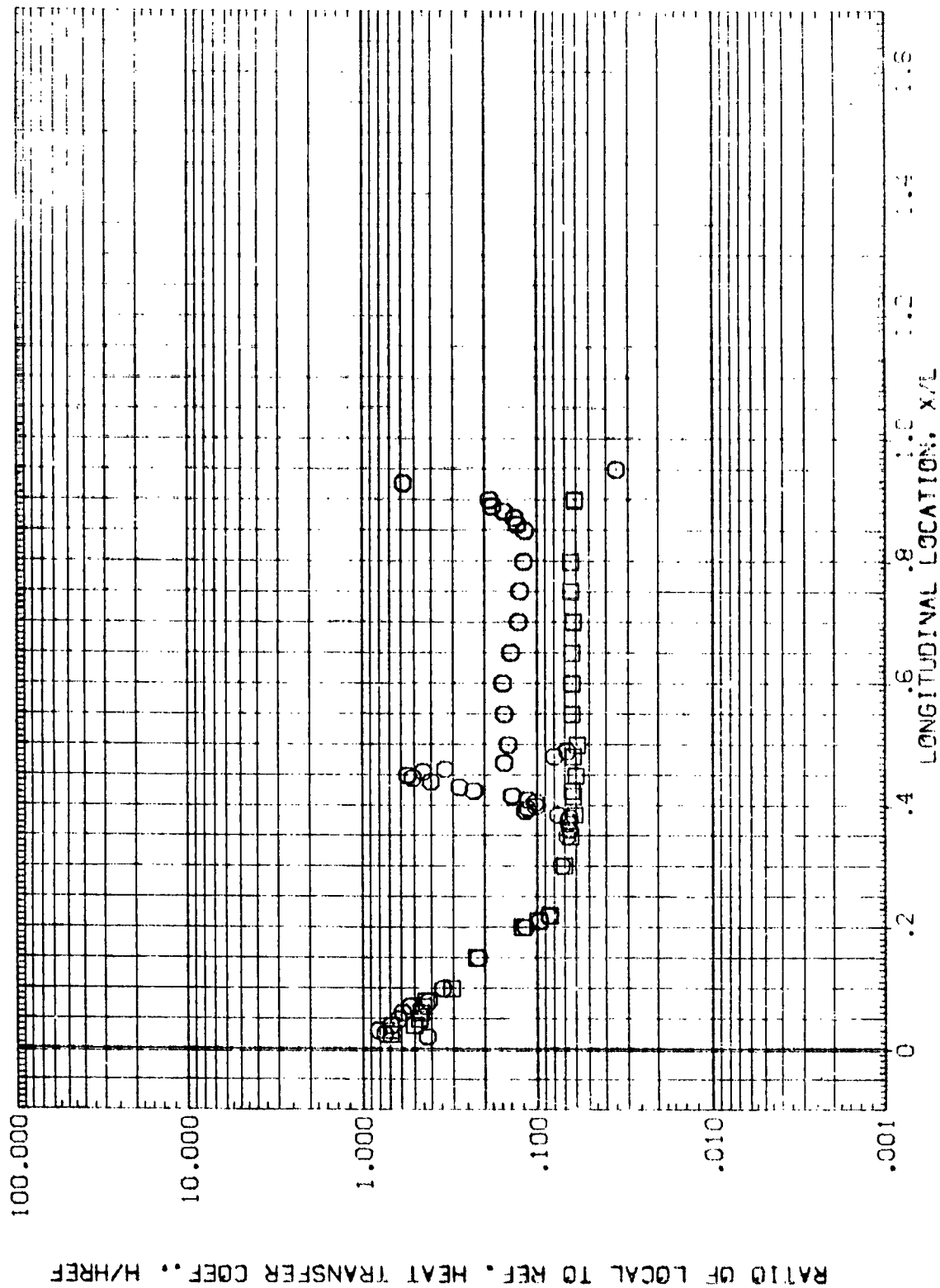




FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HEIGHT = .900 PRI = 150.000

DATA S.T. SYMBOL CONFIGURATION DESCRIPTION

(RNBFO3)  ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)

(RNBFI8)  ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA BETA RN/L  
-5.000 .000 5.000  
-5.000 .000 5.000

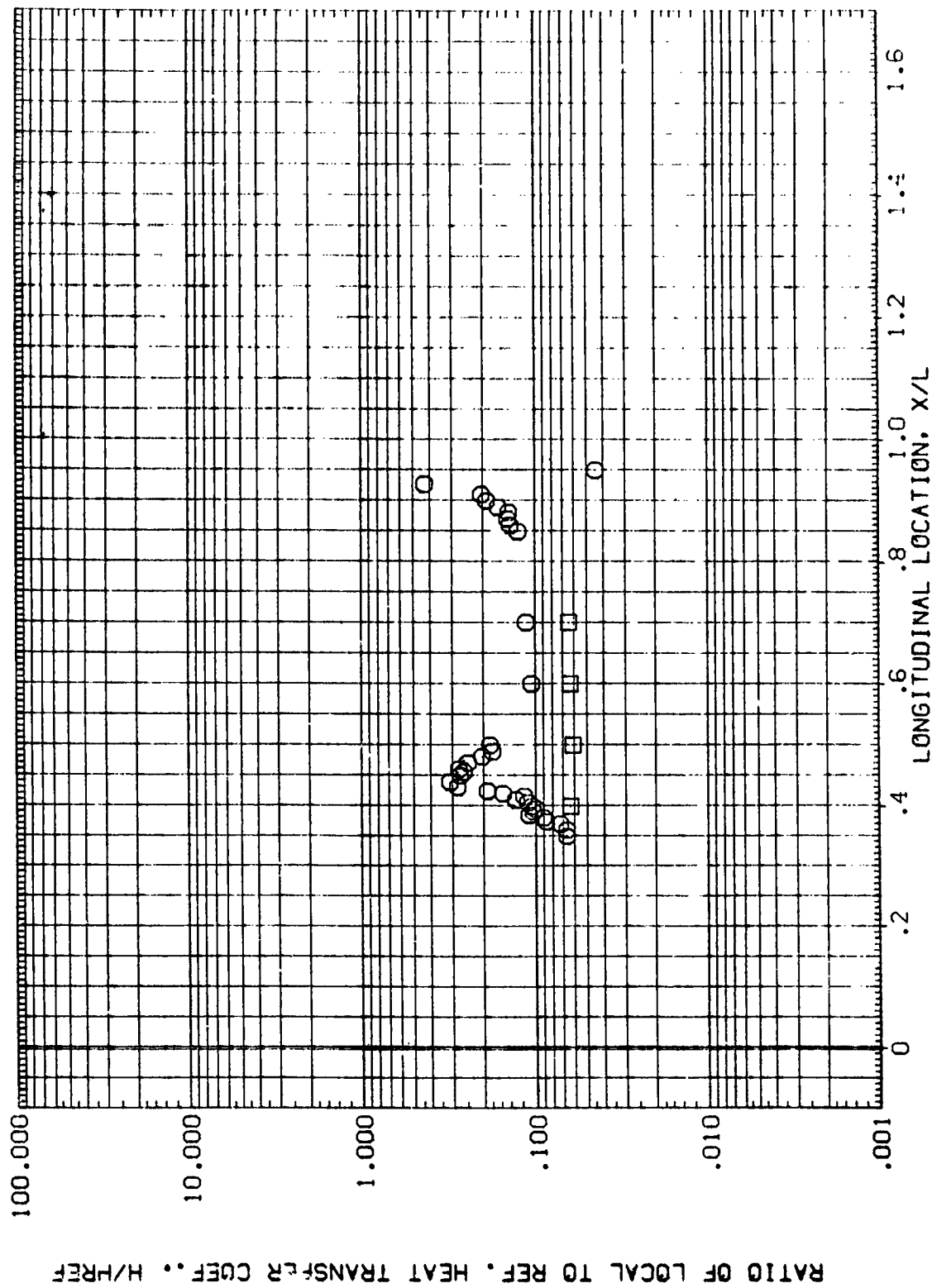


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBF03)    ARC3.5-211(I48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    -5.000    .000    5.000  
 (RNBF18)    DATA NOT AVAILABLE    -5.000    .000    5.000

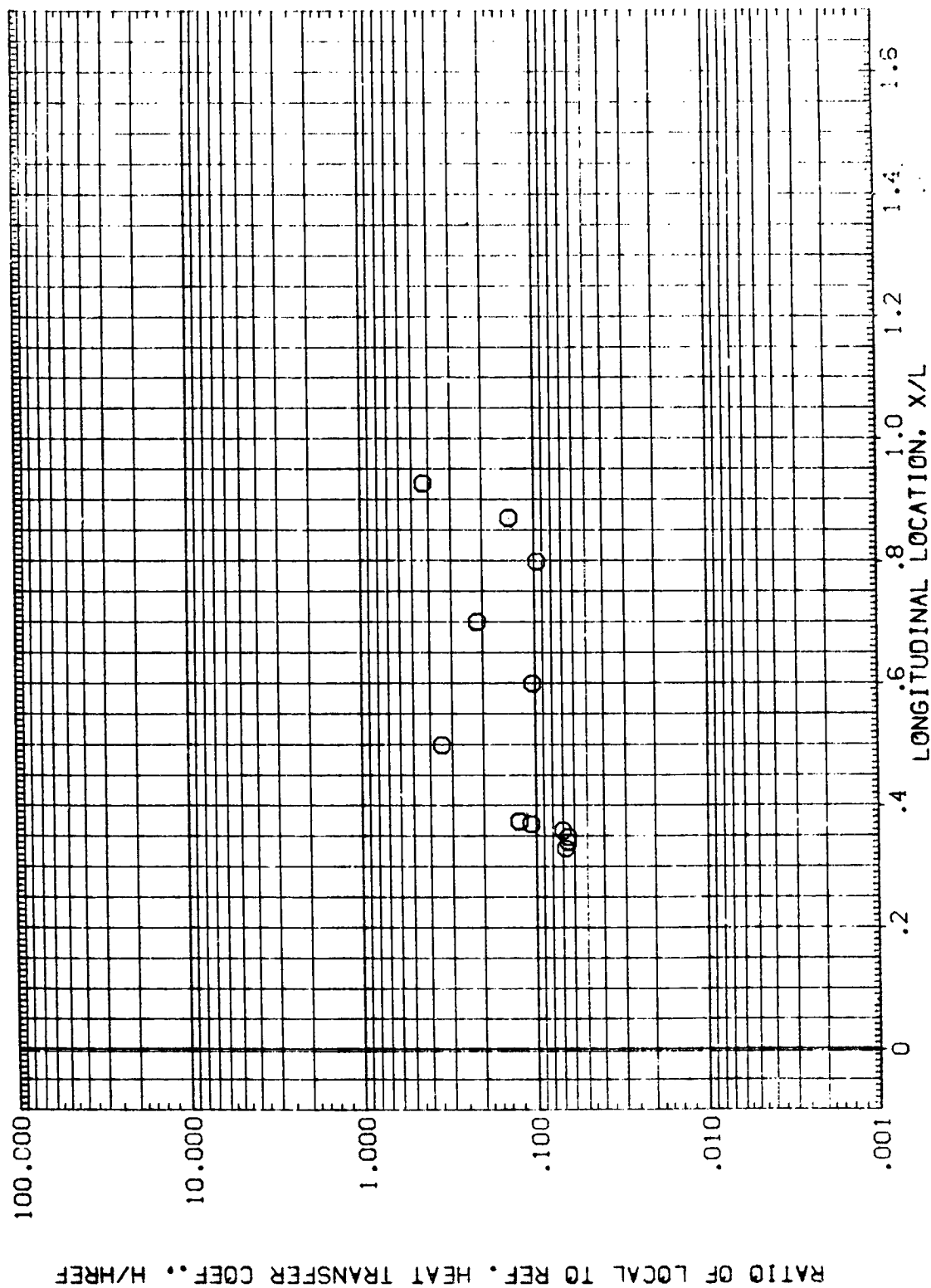


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 197.000    PAGE 72

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFO3)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    -5.000    .000    5.000  
 (RNBFT8)    DATA NOT AVAILABLE

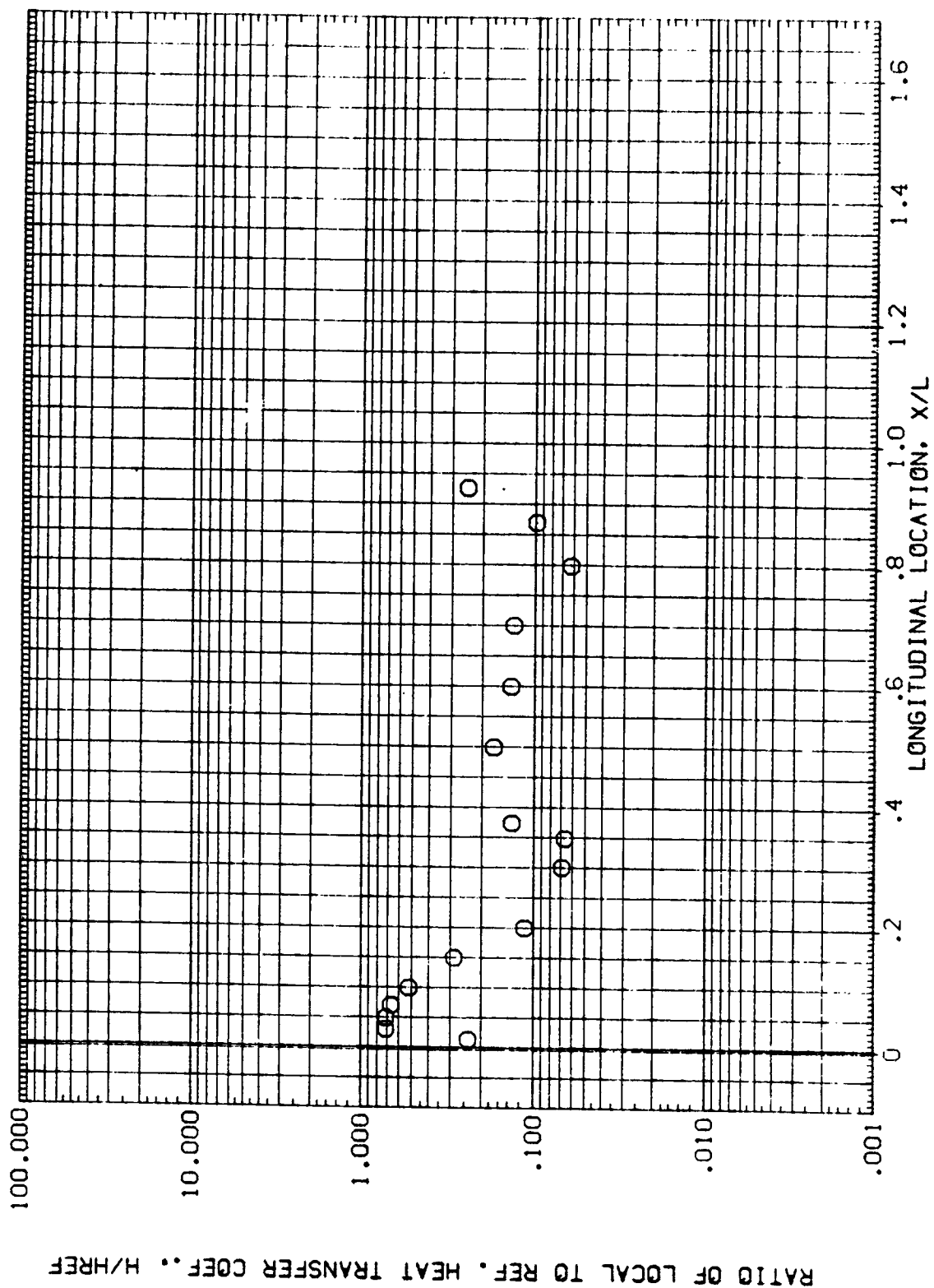


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000  
 (RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK      -5.000      .000      5.000

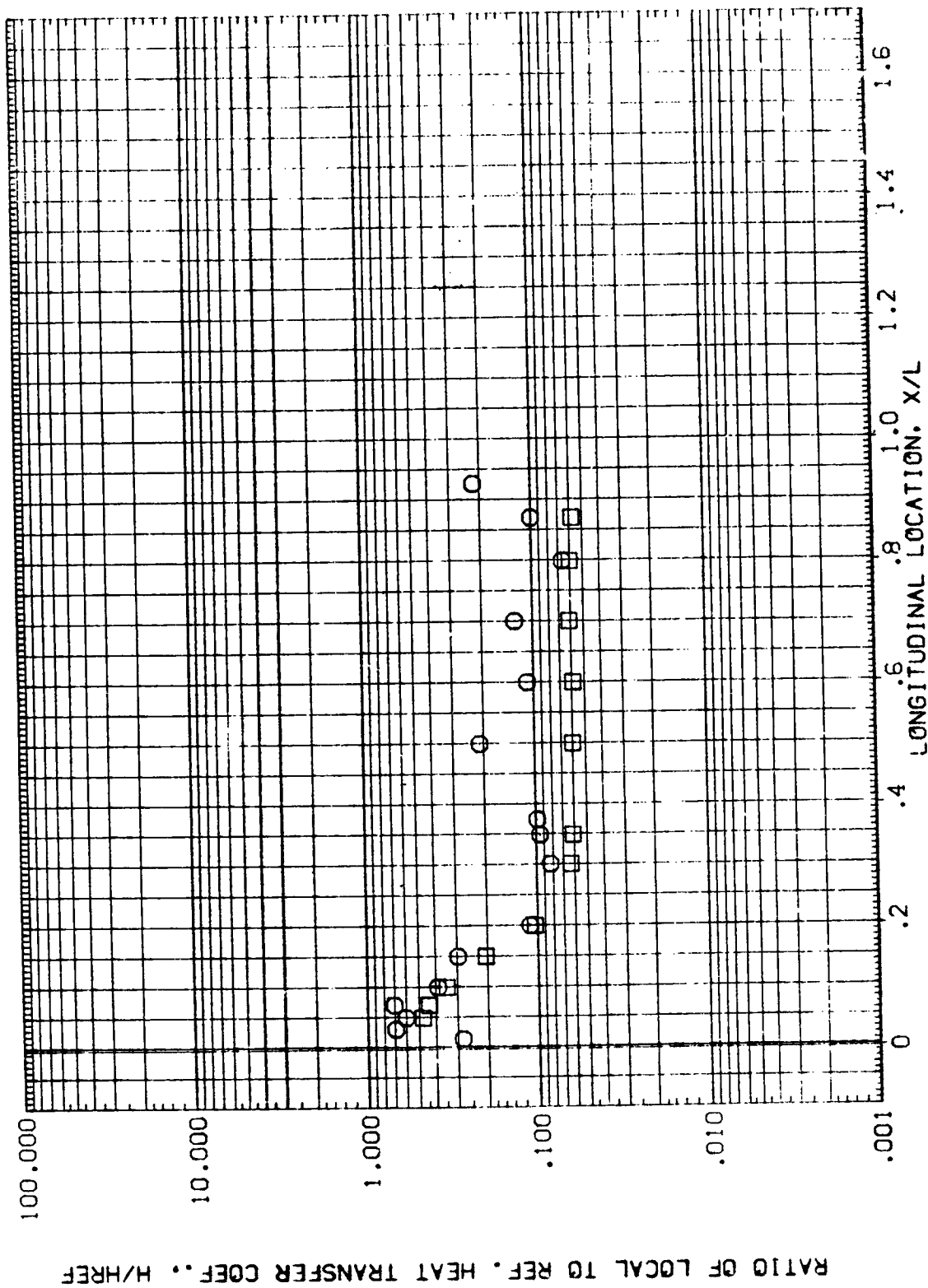


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 217.700



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (8NBF03)    O    11-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

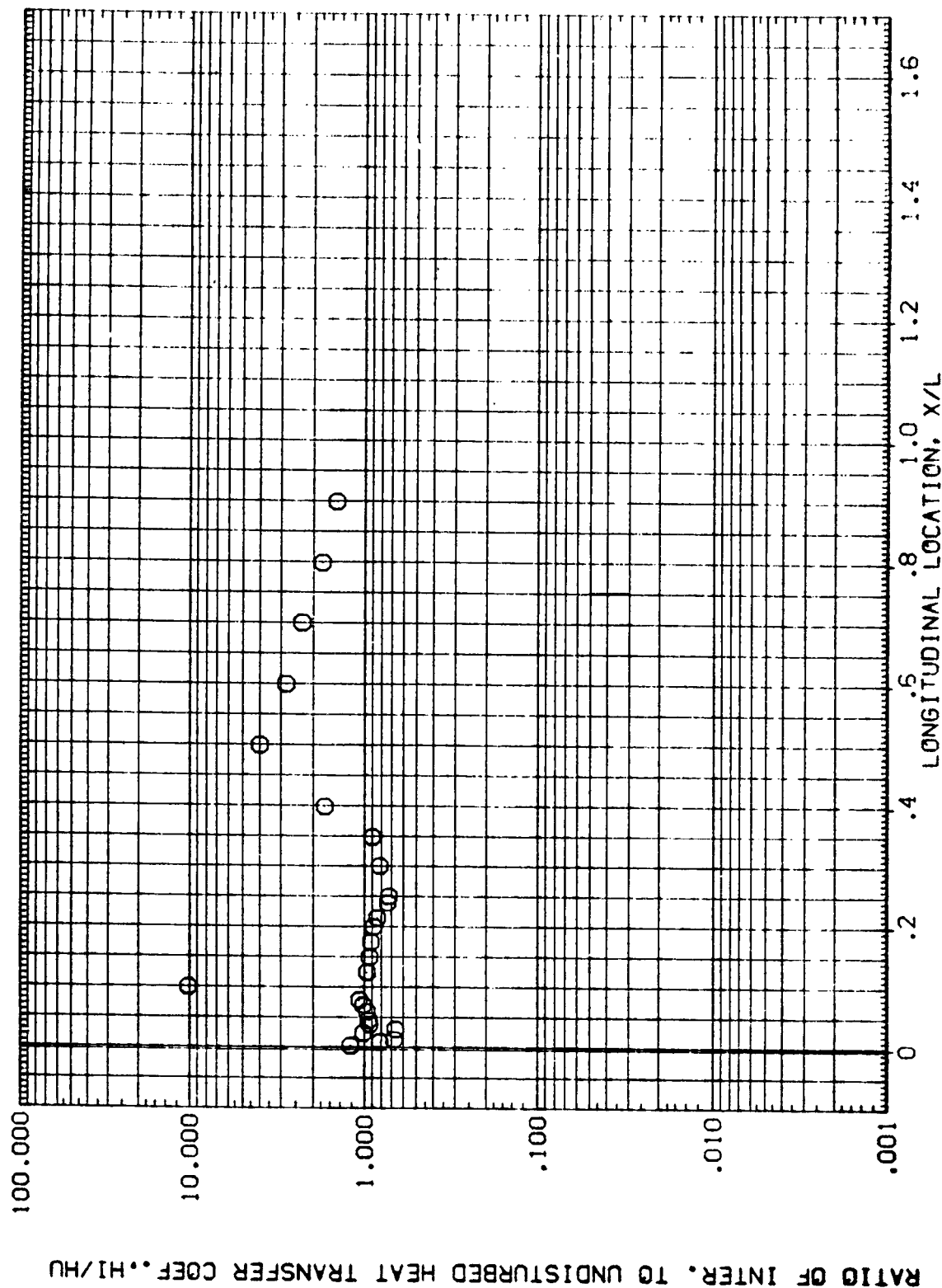


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (BNBF03)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

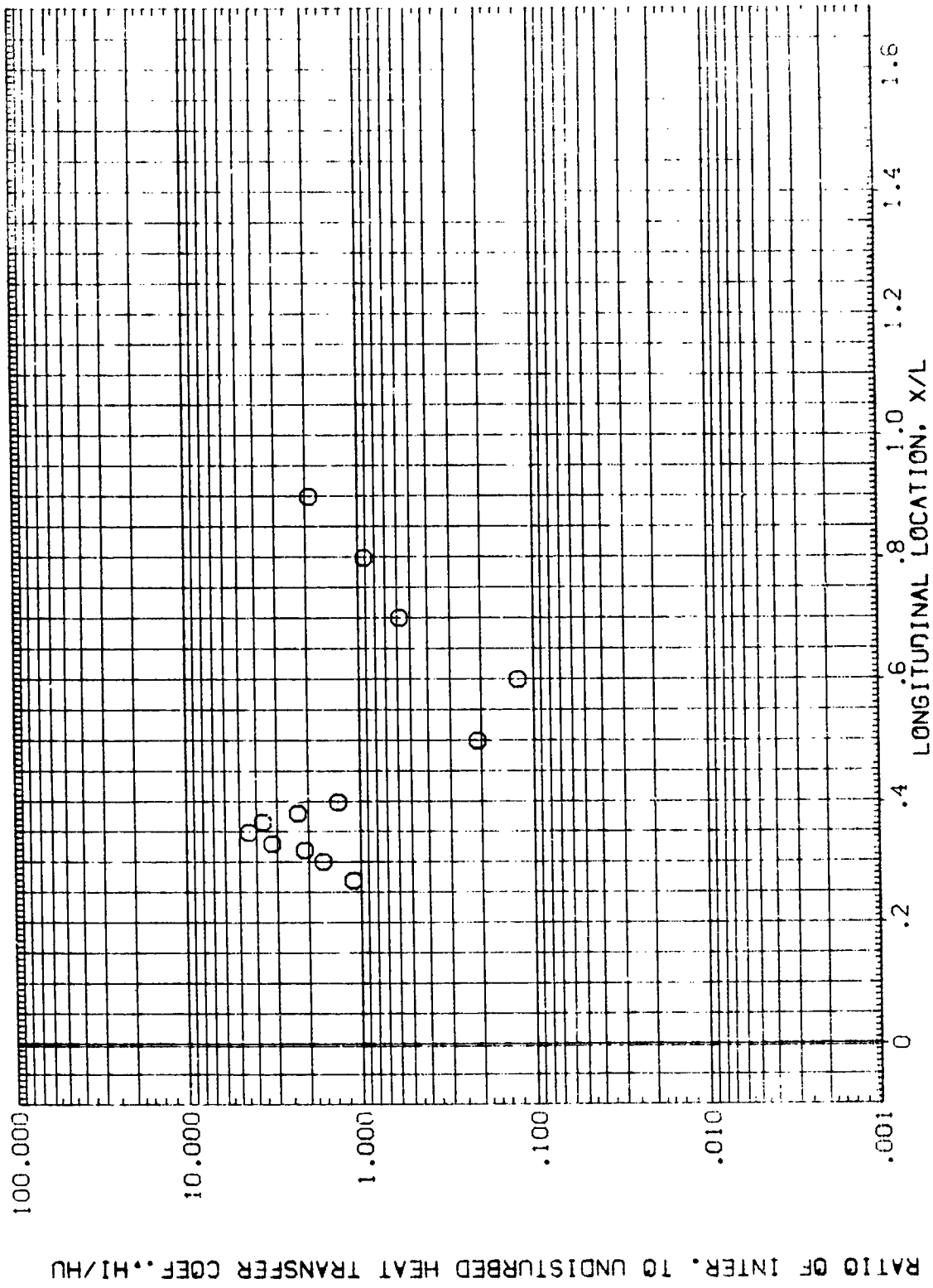


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 67.500    PAGE 76

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
(9NBF03)    ○    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA    BETA    RN/L  
-5.000    .000    5.000

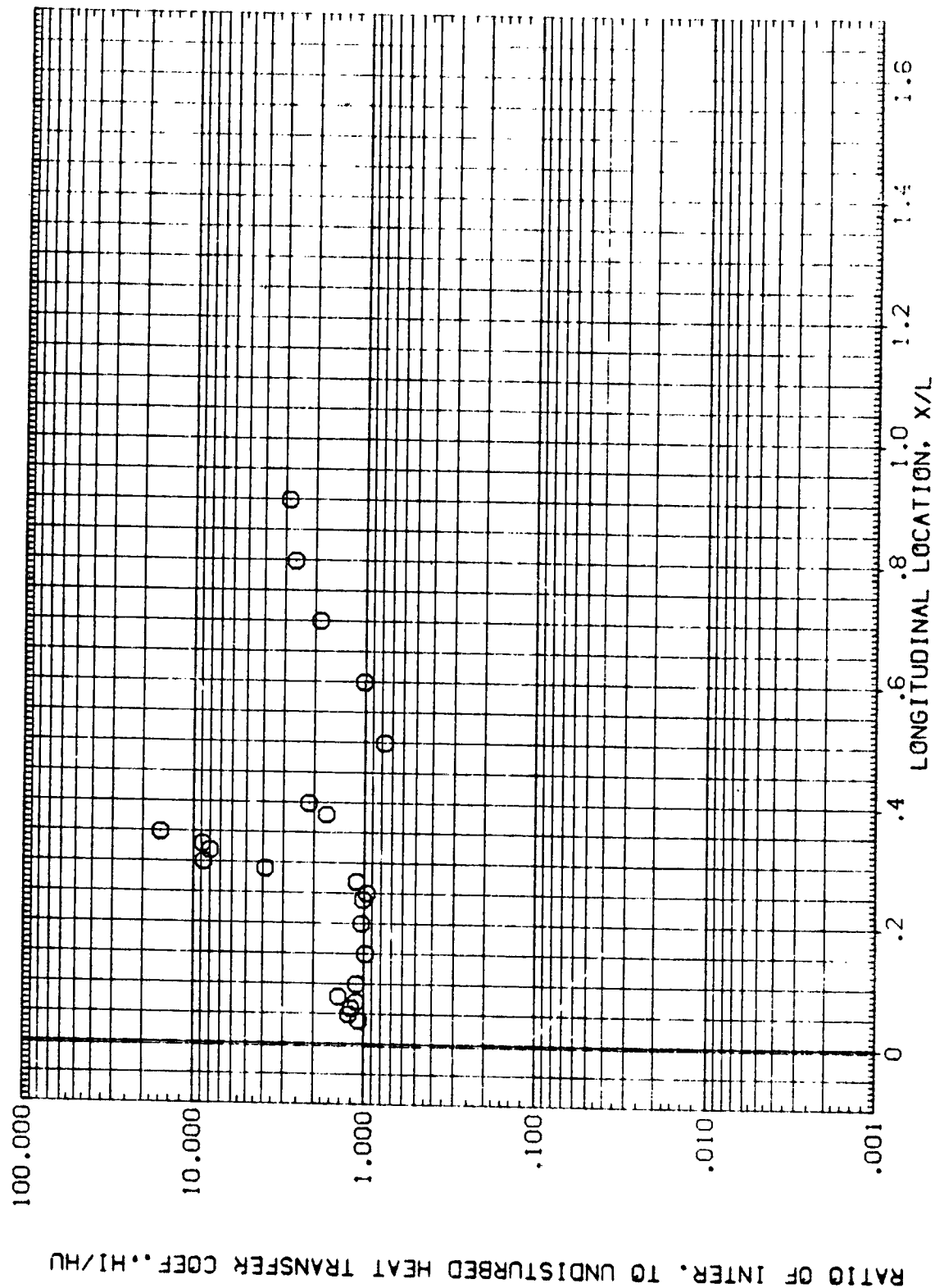


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (BNBF03)    ○    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

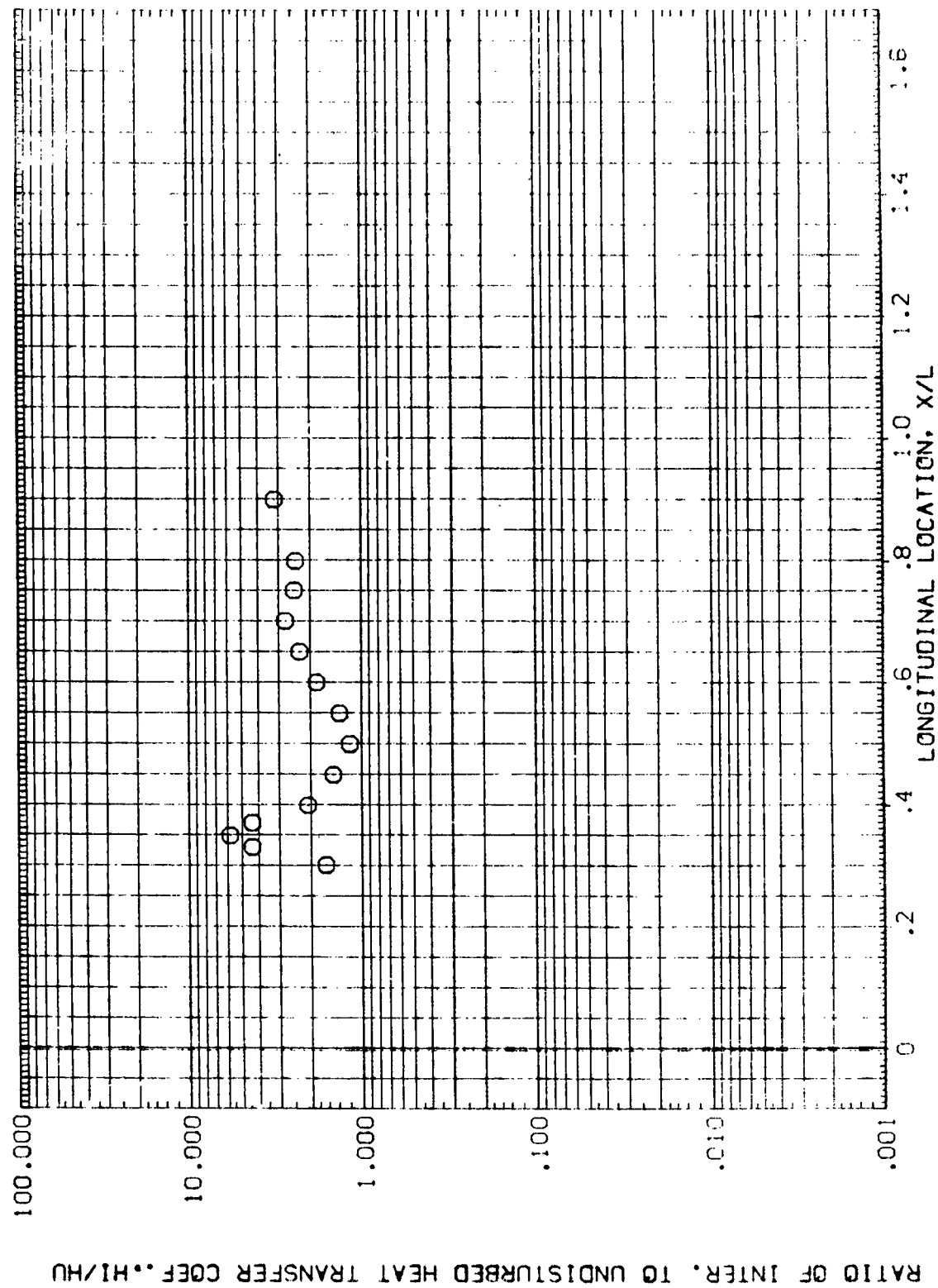


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 112.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
(B4BF03)    ○    1H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA    BETA    RN/L  
-5.000    .000    5.000

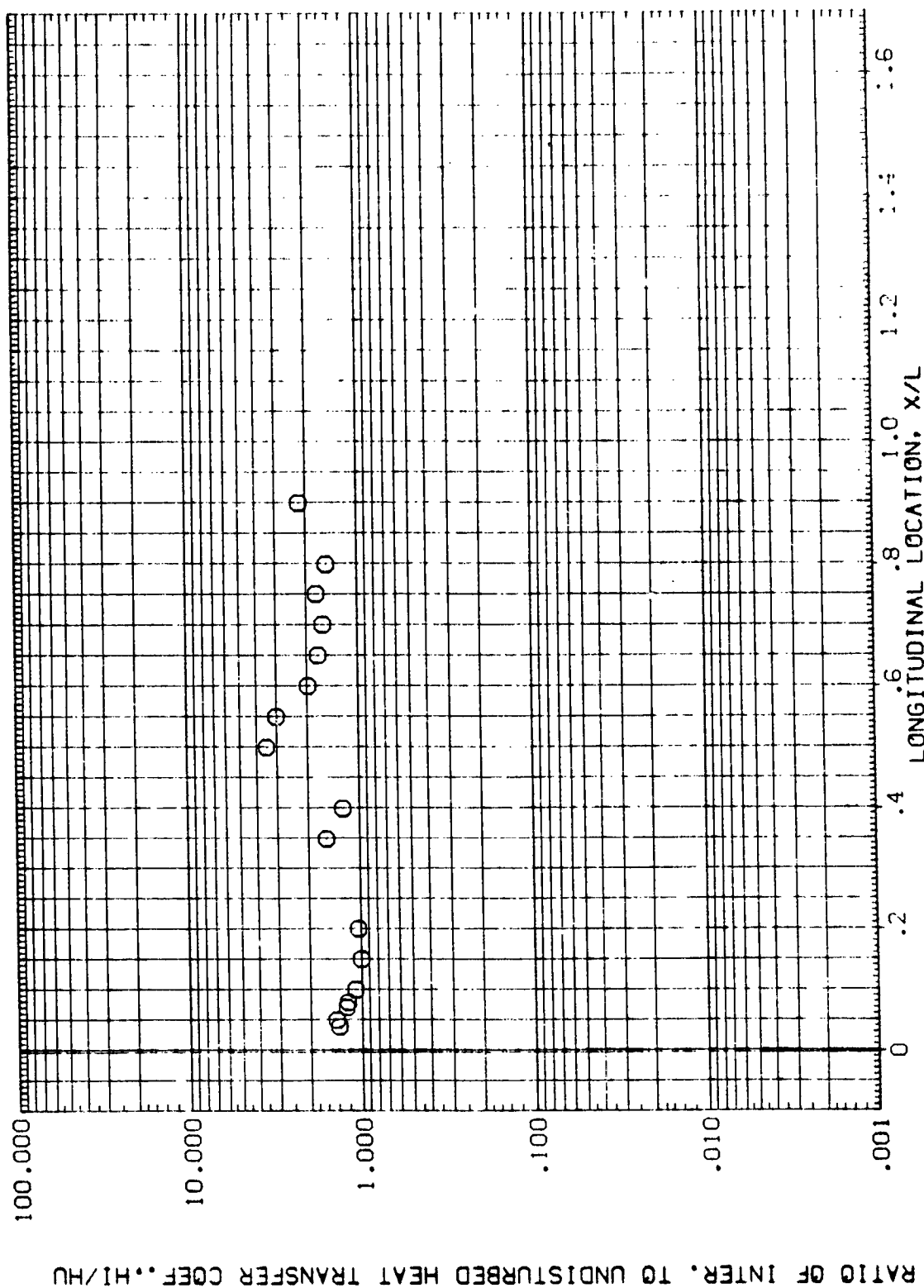


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 135.000

DATA SET SYMBOL (BNBF03) ○ CONFIGURATION DESCRIPTION IH-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA ALPHA -5.000 BETA .000 RN/L 5.000

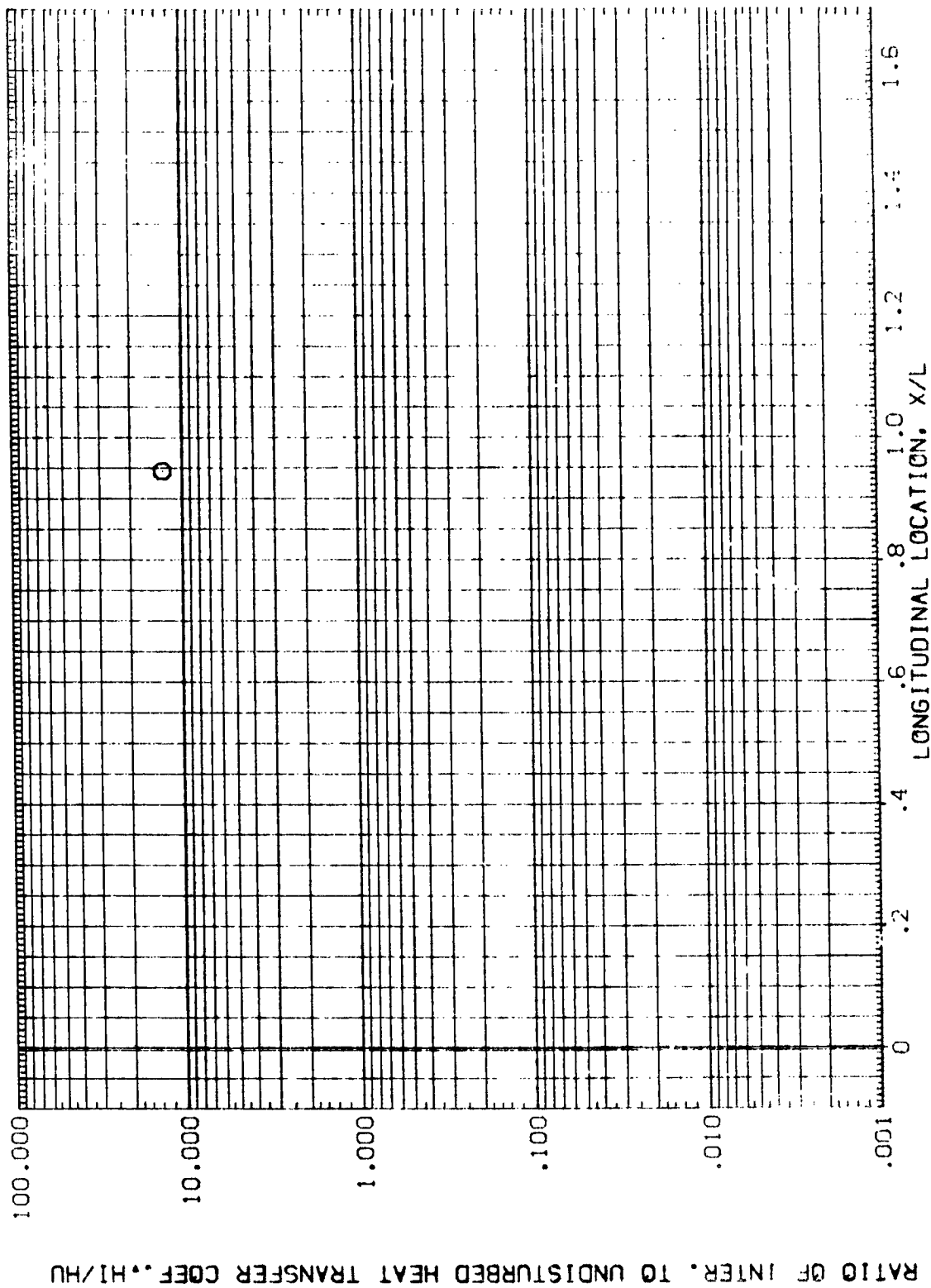


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HI = .900 PHI = 154.980 PAGE 60

DATA SET SYMBOL (846FC3)  $\bigcirc$  CONFIGURATION DESCRIPTION IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA -5.000 BETA .000 RN/L 5.000

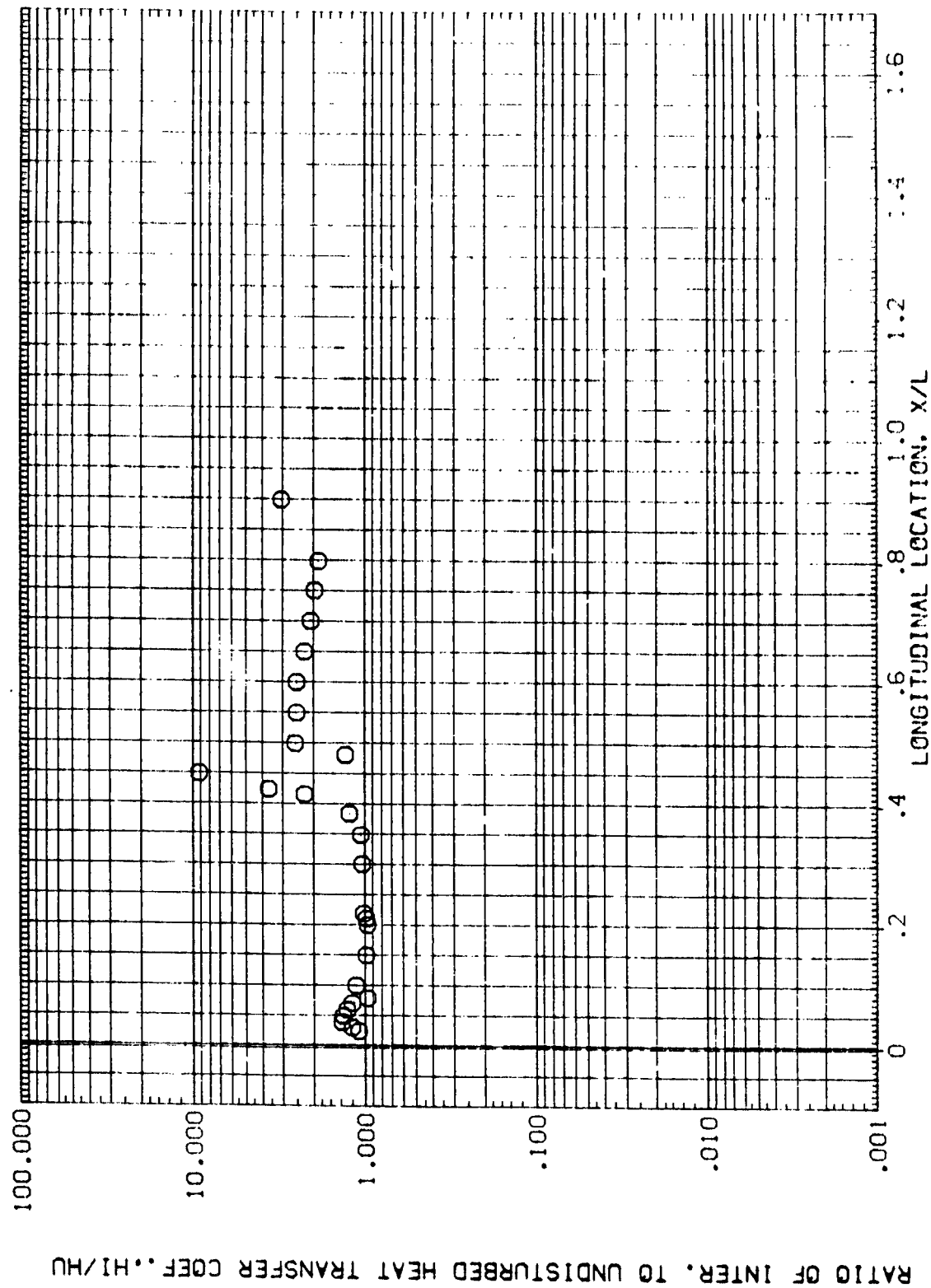


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(BNBF03)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

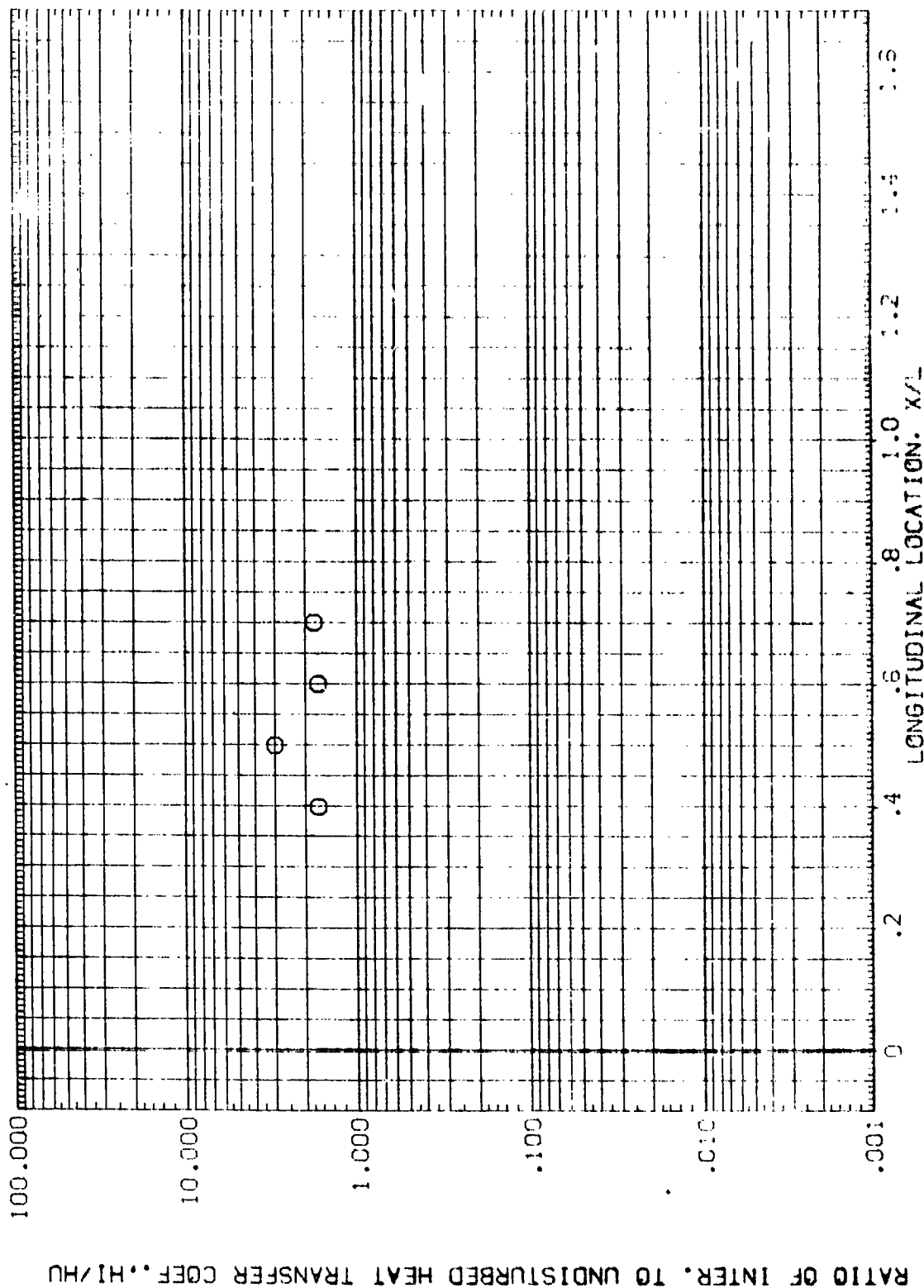


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HA#HT = .900    PHI = 191.250



DATA SET SYMBOL (8H8F03) ○

CONFIGURATION DESCRIPTION 14-48. AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA -5.000

BETA .000

RV/L 5.000

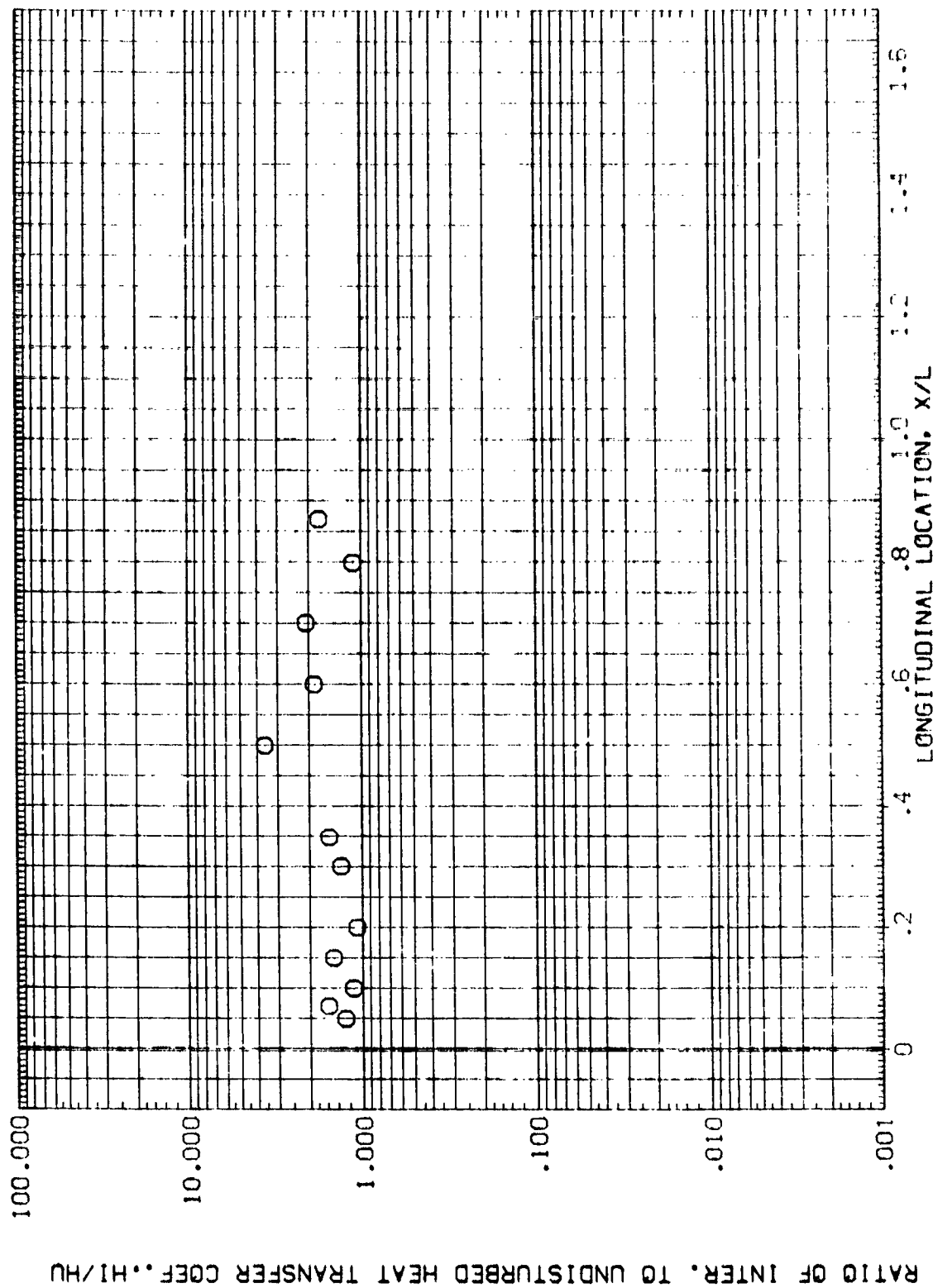


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/H<sup>T</sup> = .900 PHI = 217.700

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    A-PR    BETA    EX-  
 (CNBF01)    (H/HU Labeled H/HREF) ET INTERFERENCE DAT    .000    .000    .500  
 (R-3F01)    ARC3.5-211(IH48)OTS/NIPPLE/P/ET TANK    .000    .000    .500  
 (R-3F16)    ARC3.5-211(IH48)ET/NIPPLE/CLEAN    .000    .000    .500

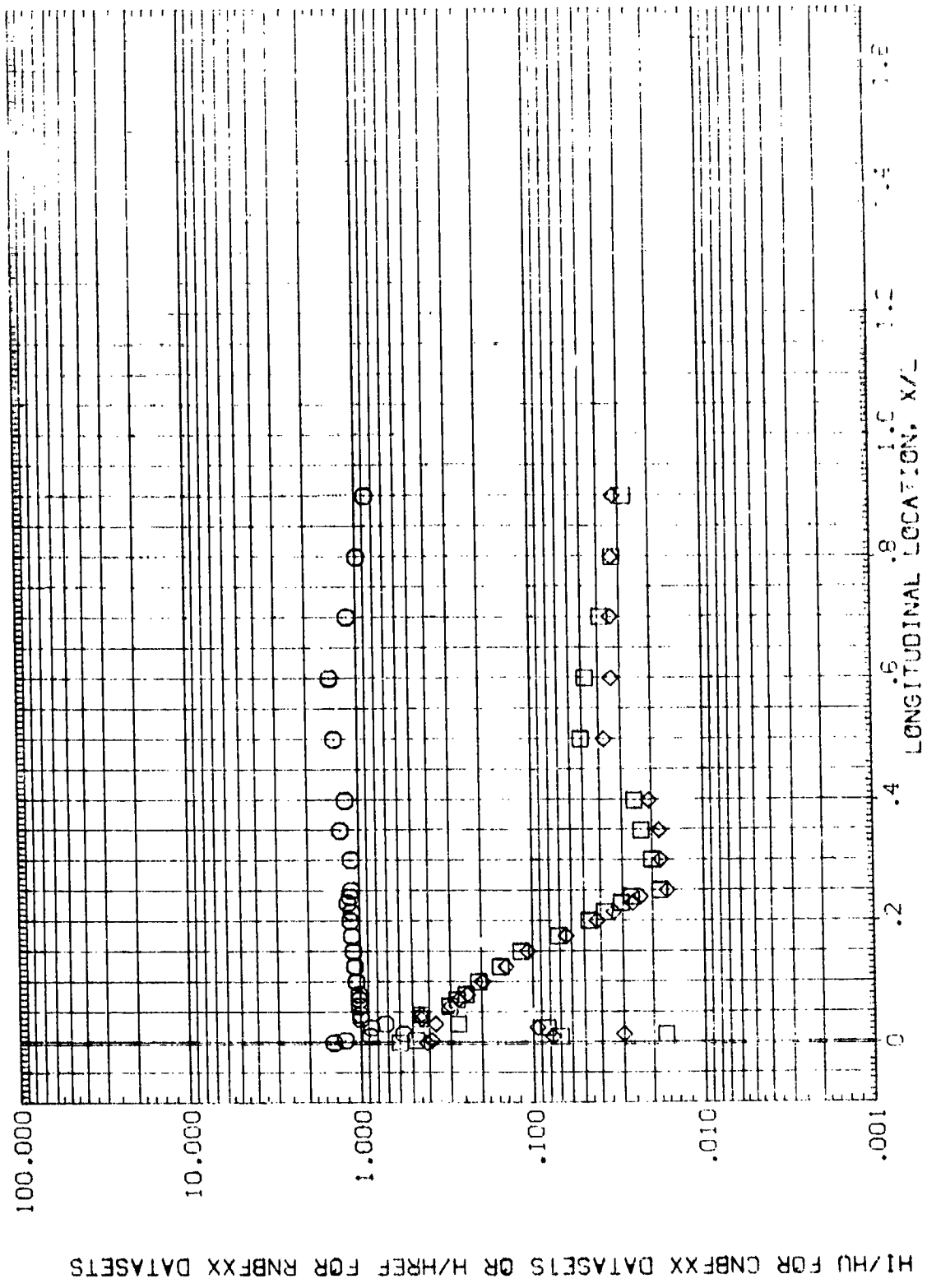


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PH = .000    PAGE 24

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF01)  
(CNBF01)  
(CNBF16)

DATA NOT AVAILABLE  
ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
DATA NOT AVAILABLE

ALPHA .000  
BETA .000  
RN/L 1.500

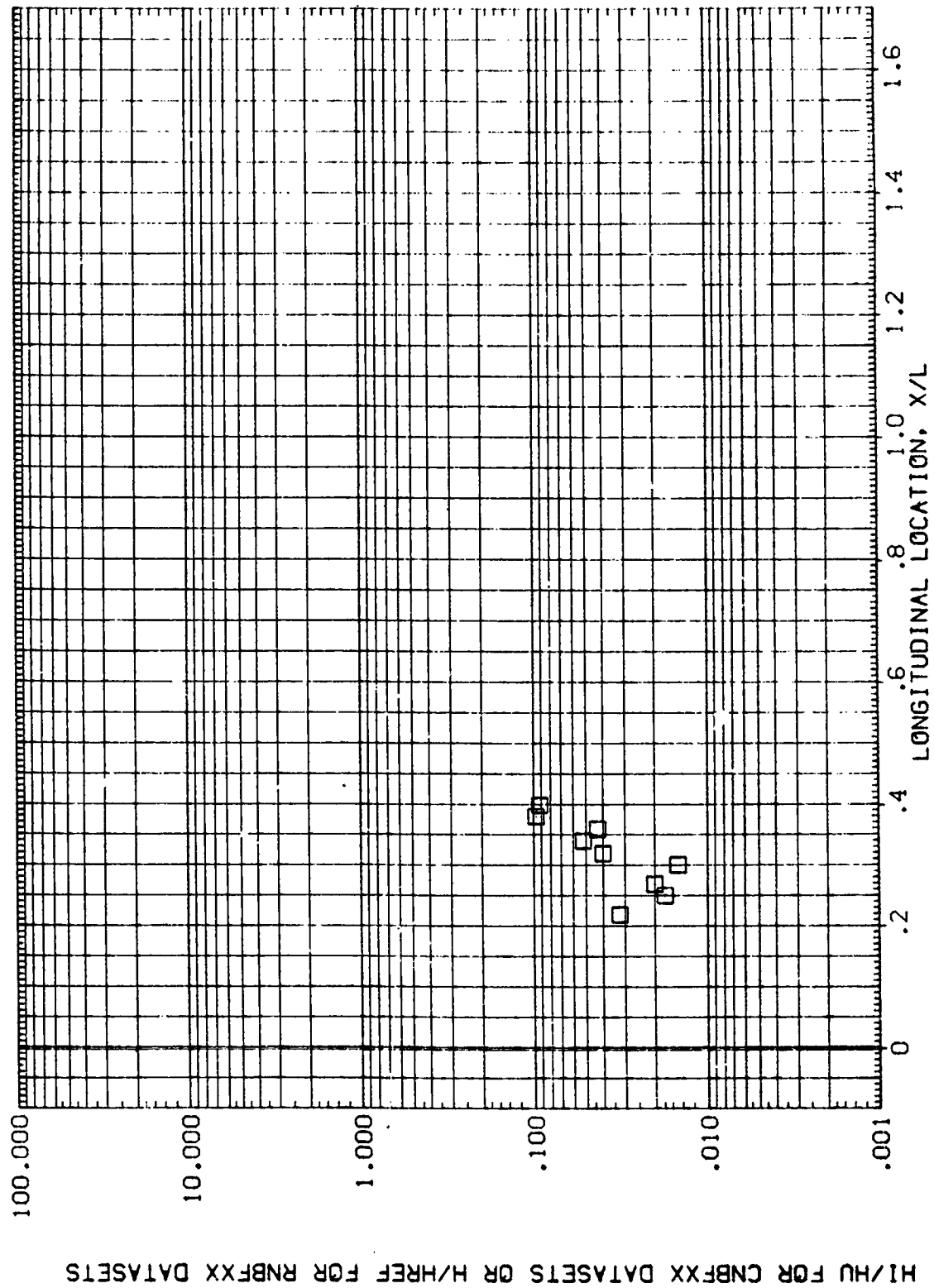


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(CNBF01)      HI-48 (HI/HU LABELED H/HREF)  
(RNB01)      ARC3.5-211(IH48)GTS/NIPPLE/P/IRIP(G+S) EXT TANK  
(RNB16)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA      BETA      RN/L

.000      .000      1.500  
.000      .000      1.500  
.000      .000      1.500

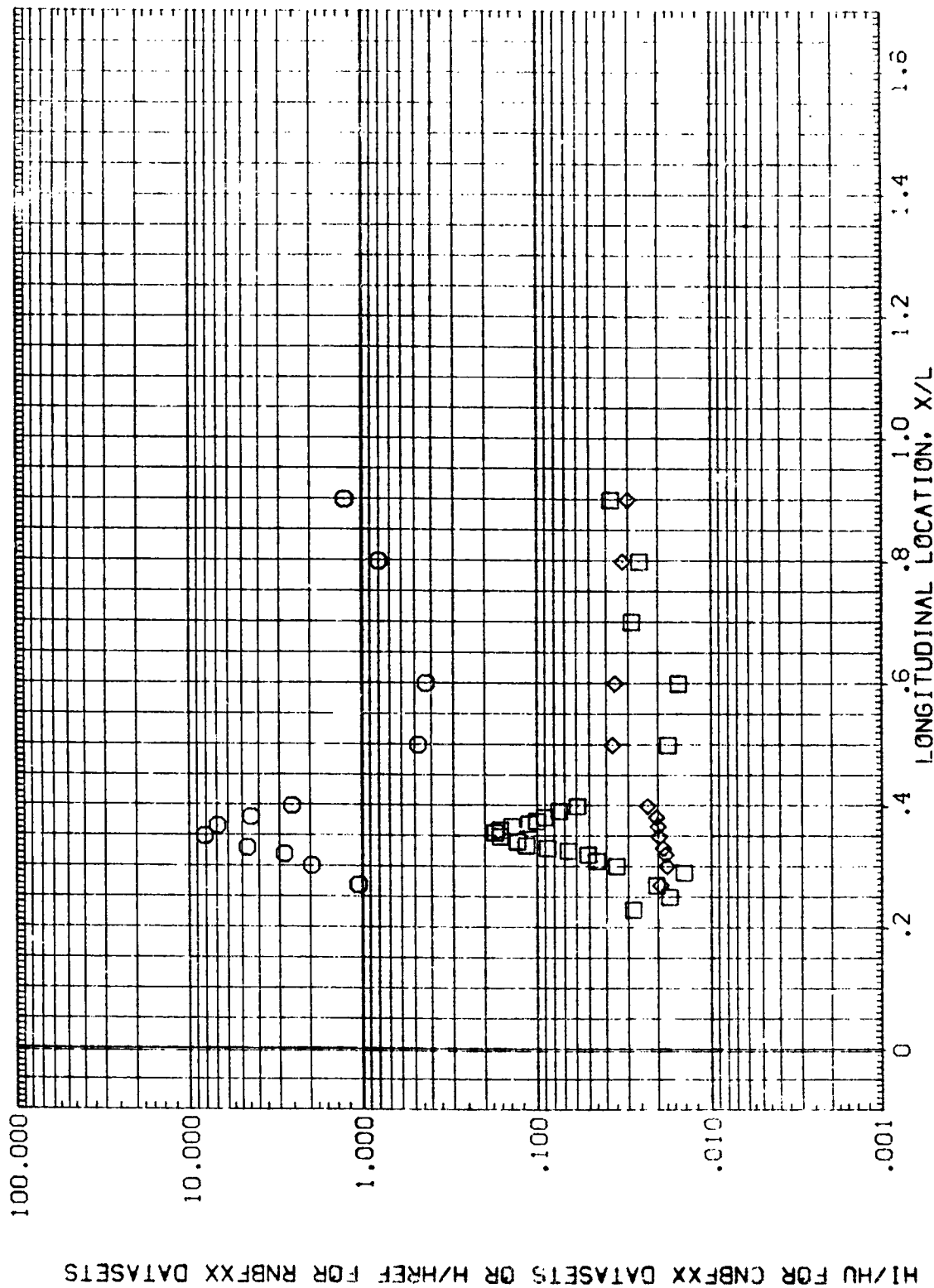


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF01)      DATA NOT AVAILABLE  
 (CNBF01)      ARC3-S-21C1H48J0TS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (CNBF16)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 .000      .000      1.500  
 .000      .000      1.500

HI/HU FOR CNBFXX DATASETS OR H/HREF FOR RNBFX DATASETS

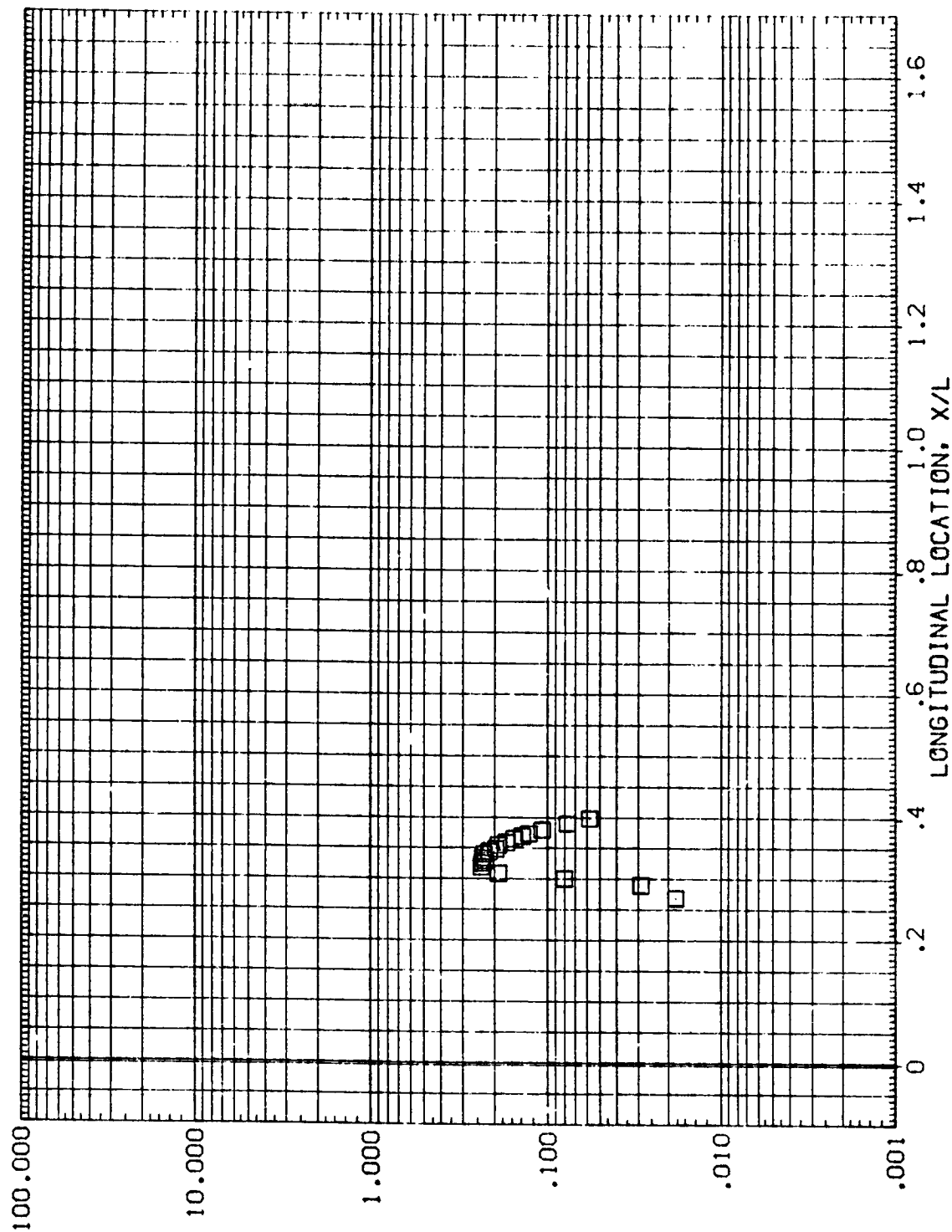


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 78.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF01) IH-48 (H/HU LABELED H/HREF)  
(RNBFO1) ARC3.5-211(IH48)OTS/NIPPLE/P/RIIP(O+S)  
(RNBFI6) ARC3.5-211(IH48)ET/NIPPLE/CLEAN

ALPHA BETA RN/L  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 1.500

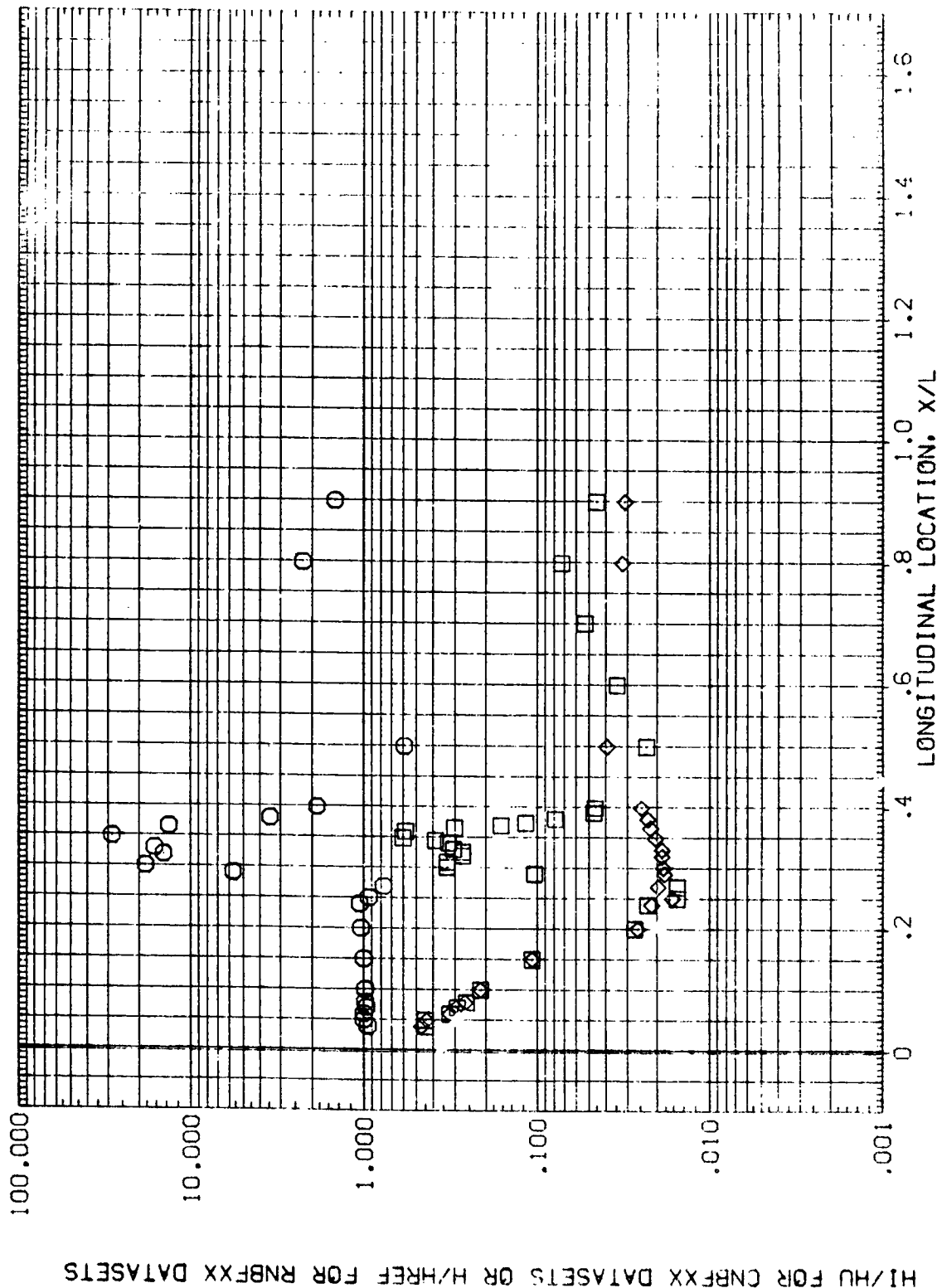


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF01)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      1.500

(RNBF01)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      1.500

(RNBF16)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

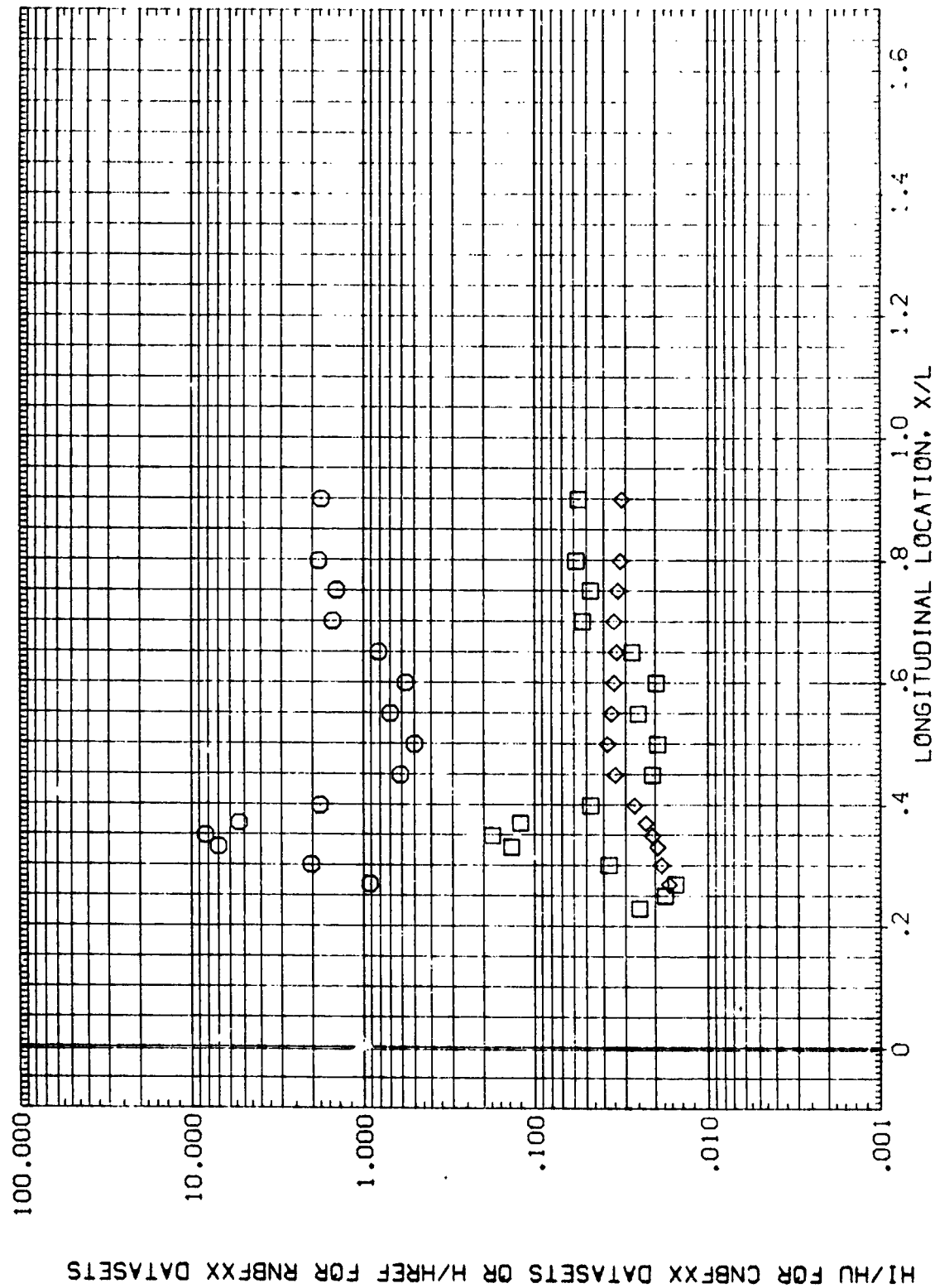


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBFO1)  
(RNBFO1)  
(RNB16)

DATA NOT AVAILABLE  
ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
DATA NOT AVAILABLE

ALPHA BETA RV/L  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 1.500

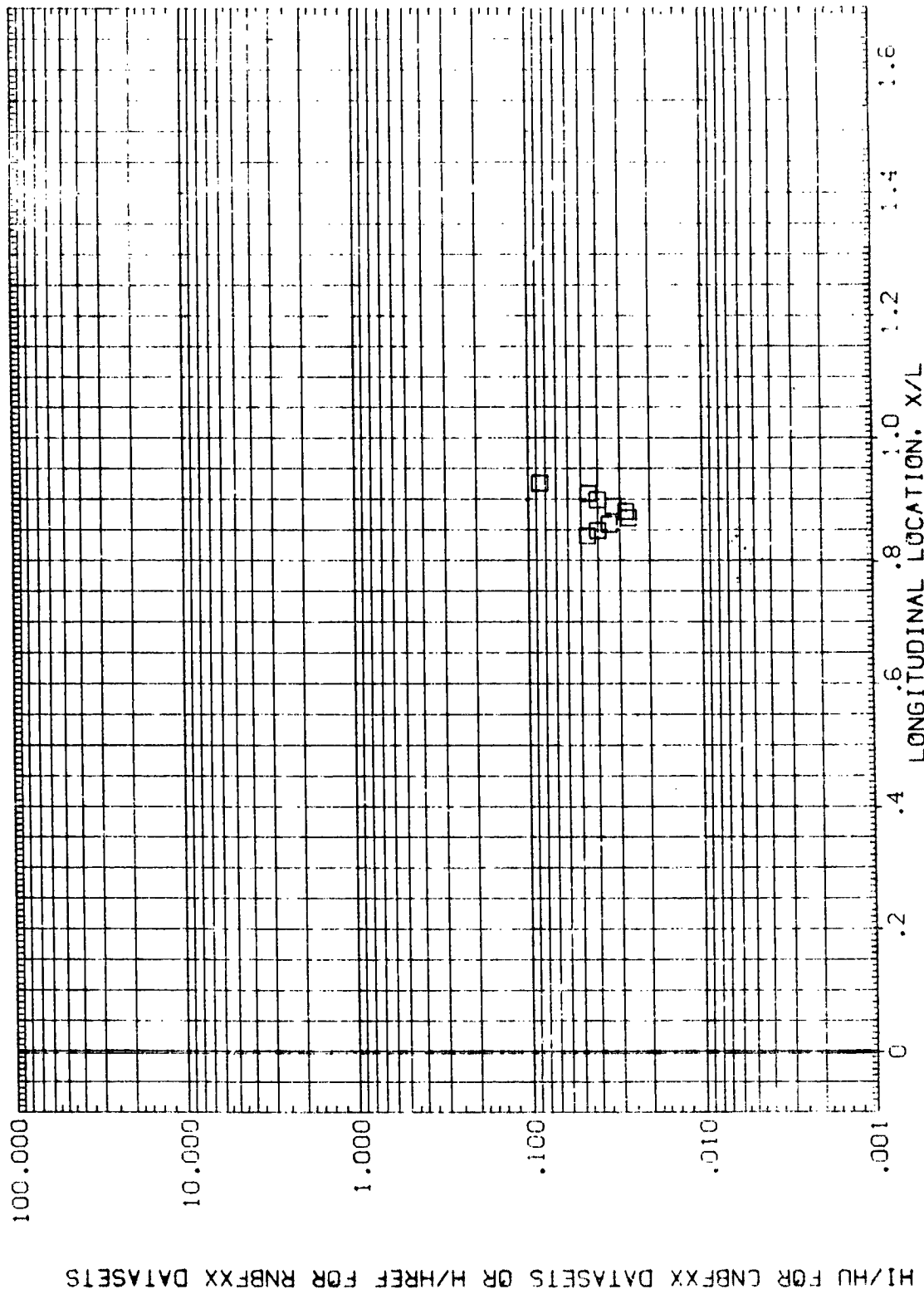


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 125.400



# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF01) DATA NOT AVAILABLE  
 (CNBF01) ARC3.5-211(1448)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (CNBF16) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 .000 .000 1.500  
 .000 .000 1.500

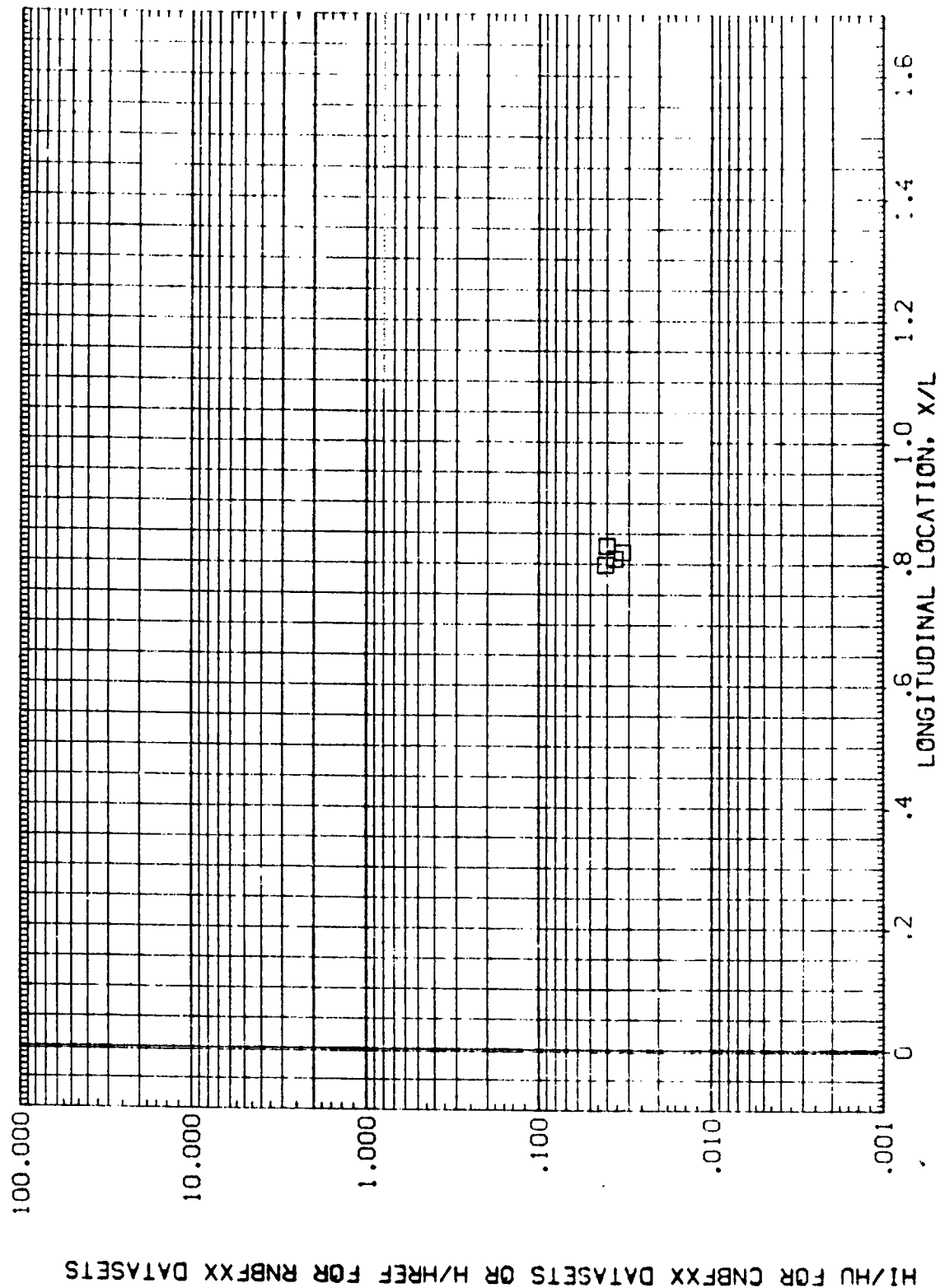


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.30C HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(C)BF01)      IH-48 (H/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      1.500

(R)BF01)      ARC3.5-211(148)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      1.500

(R)BF16)      ARC3.5-211(148)ET /NIPPLE/CLEAN EXT TANK      .000      .000      1.500

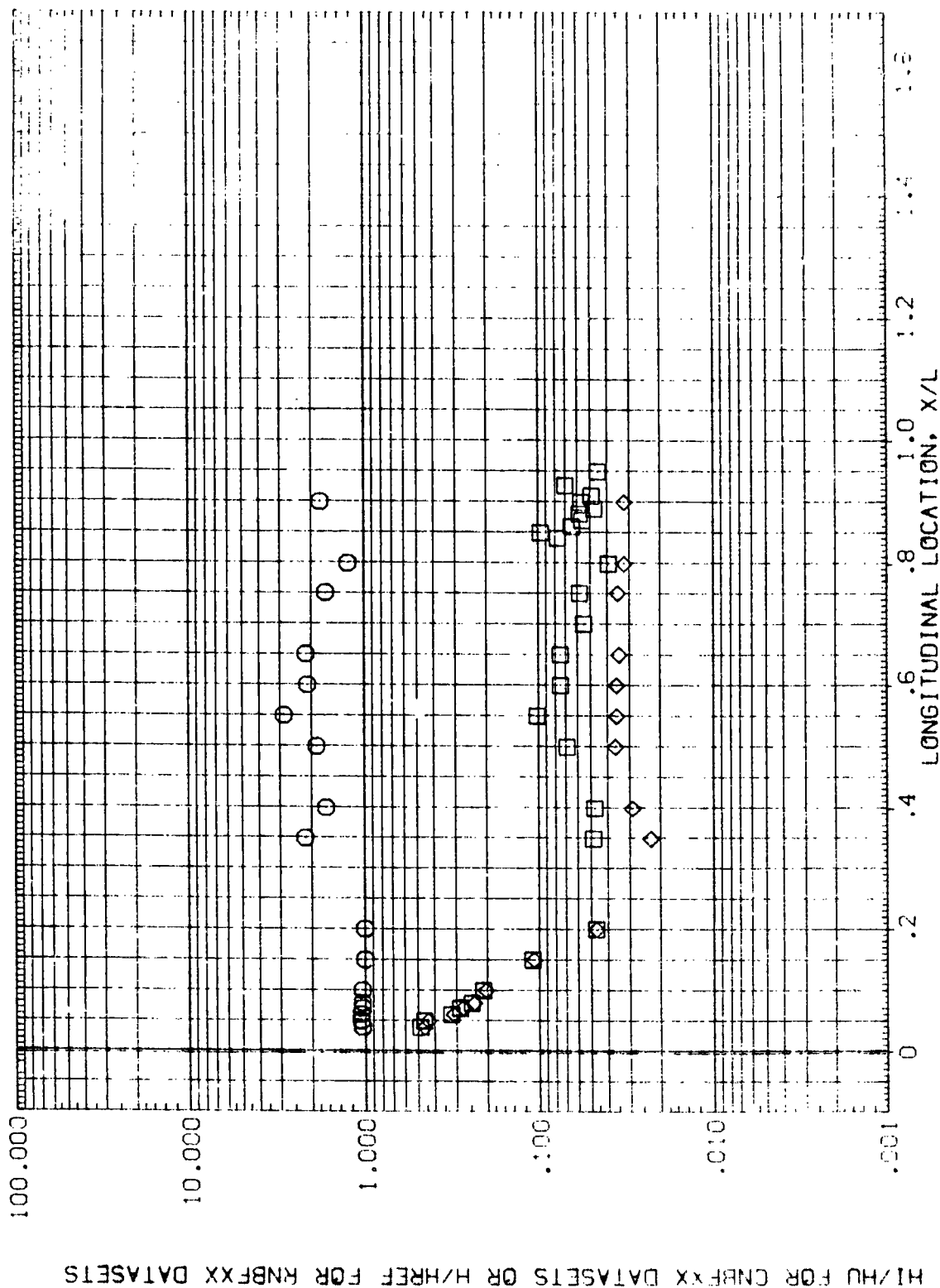


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300       $\gamma_{AW}/H_T = .900$       PHI = 135.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CIBF01)      DATA NOT AVAILABLE  
 (RIBF01)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RIBF16)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 .000      .000      1.500  
 .000      .000      1.500  
 .000      .000      1.500

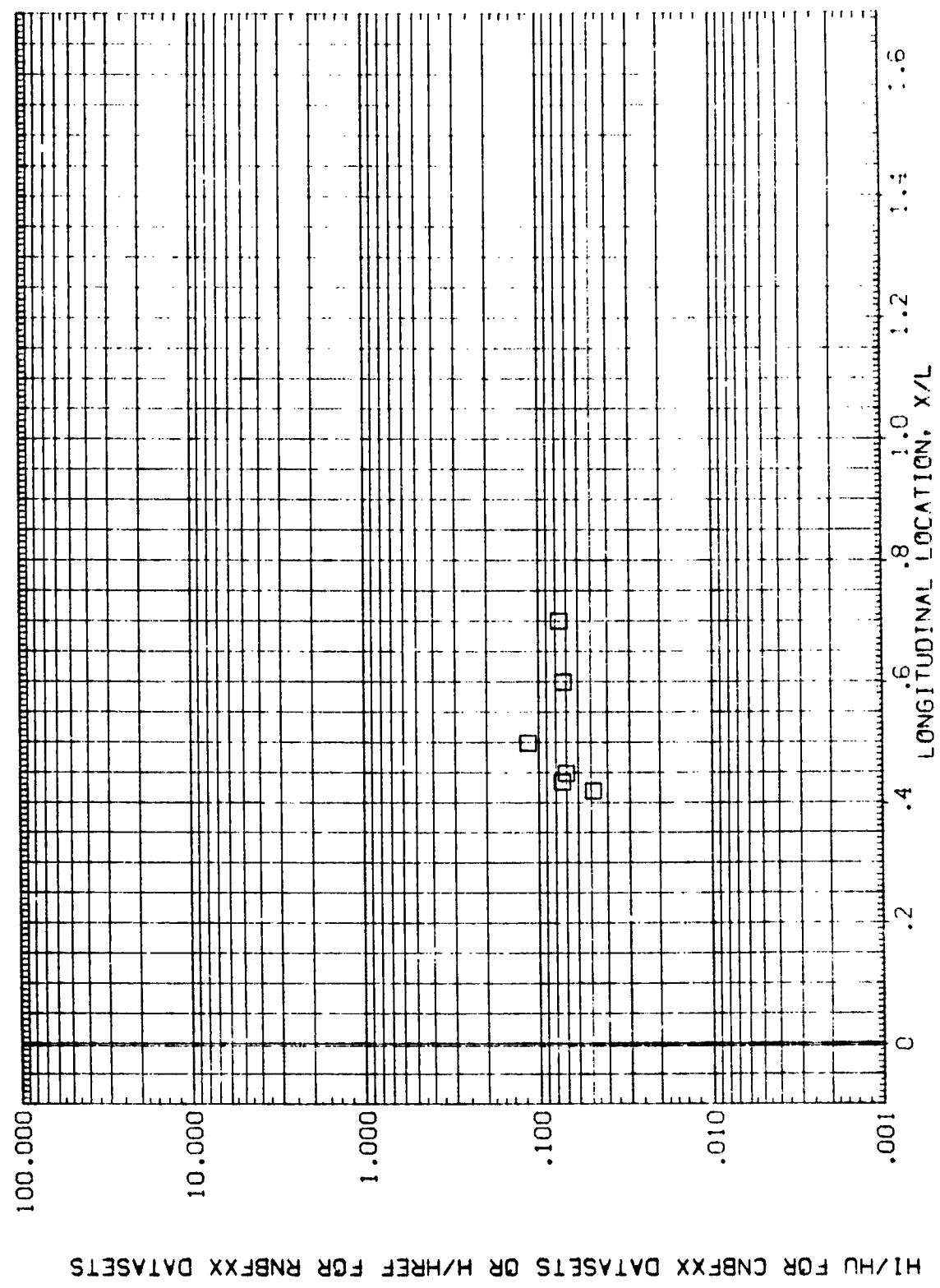


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HREF = .900      PHI = 142.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBFG1)      DATA NOT AVAILABLE  
 (RNBFG1)      ARC3.5-2111(H48)OTS/NIPPLE/P/TRIP(O-S) EXT TANK  
 (RNBFG16)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 .000      .000      1.500  
 .000      .000      1.500  
 .000      .000      1.500

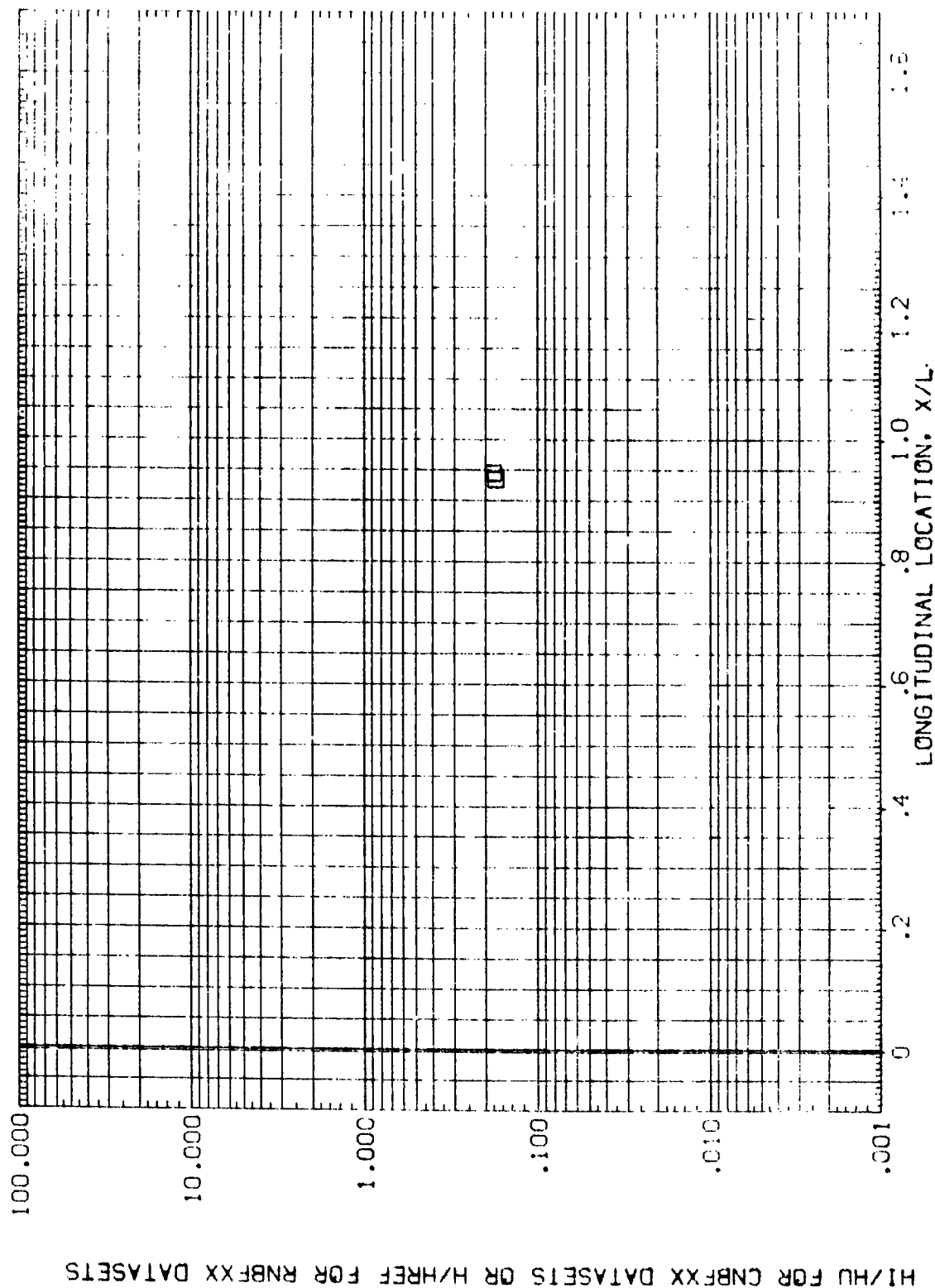


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 154.980

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBFG1)      DATA NOT AVAILABLE  
 (RNBFO1)      ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFI6)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 .000      .000      1.500  
 .000      .003      1.500  
 .000      .020      1.500

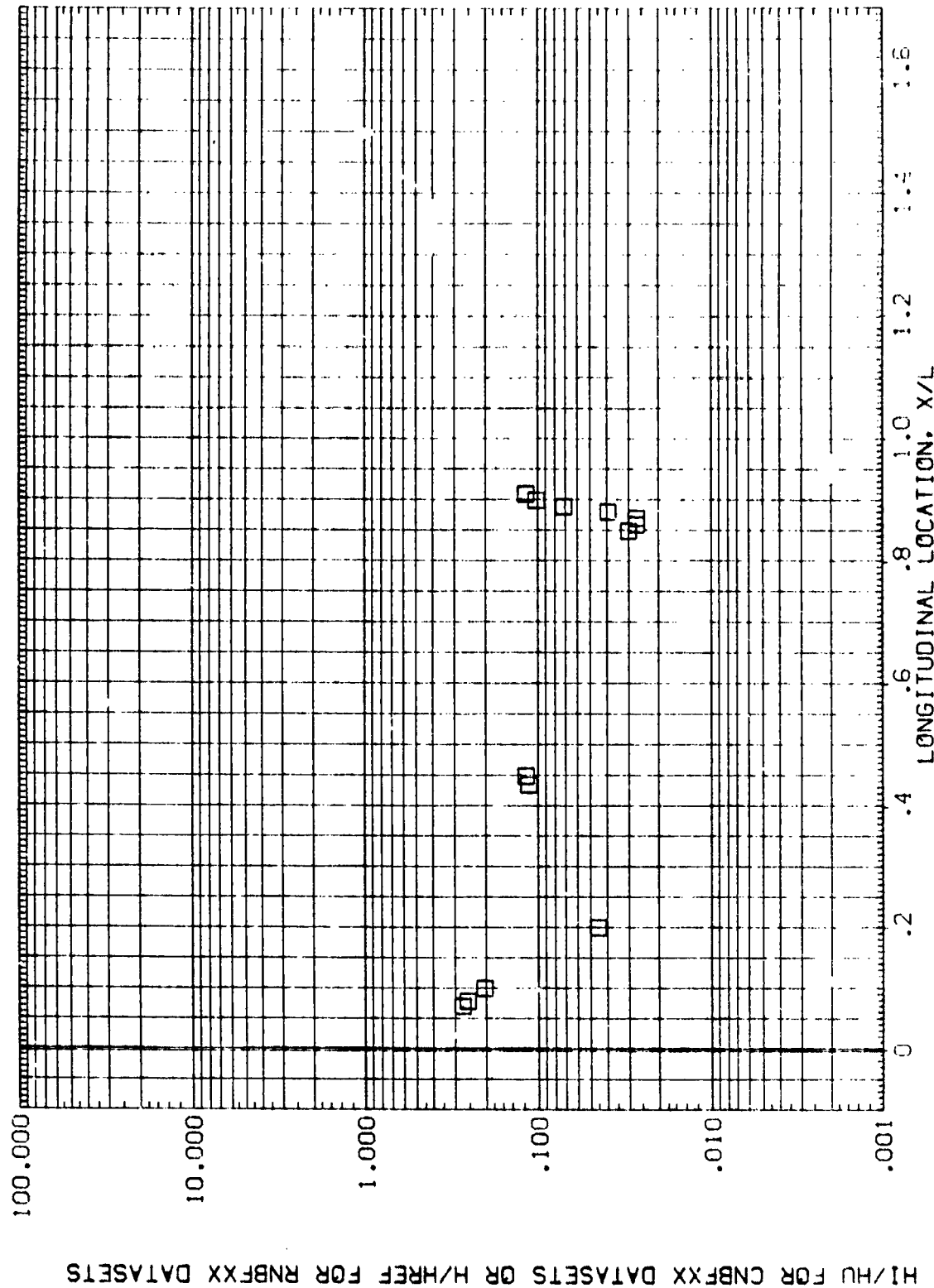


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HI = .900      PHI = 157.500

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBFO1)  
(RNBFO1)  
(RNBFI6)

DATA NOT AVAILABLE  
ARC3-5-211(CH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
DATA NOT AVAILABLE

ALPHA BETA RV/L  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 1.500

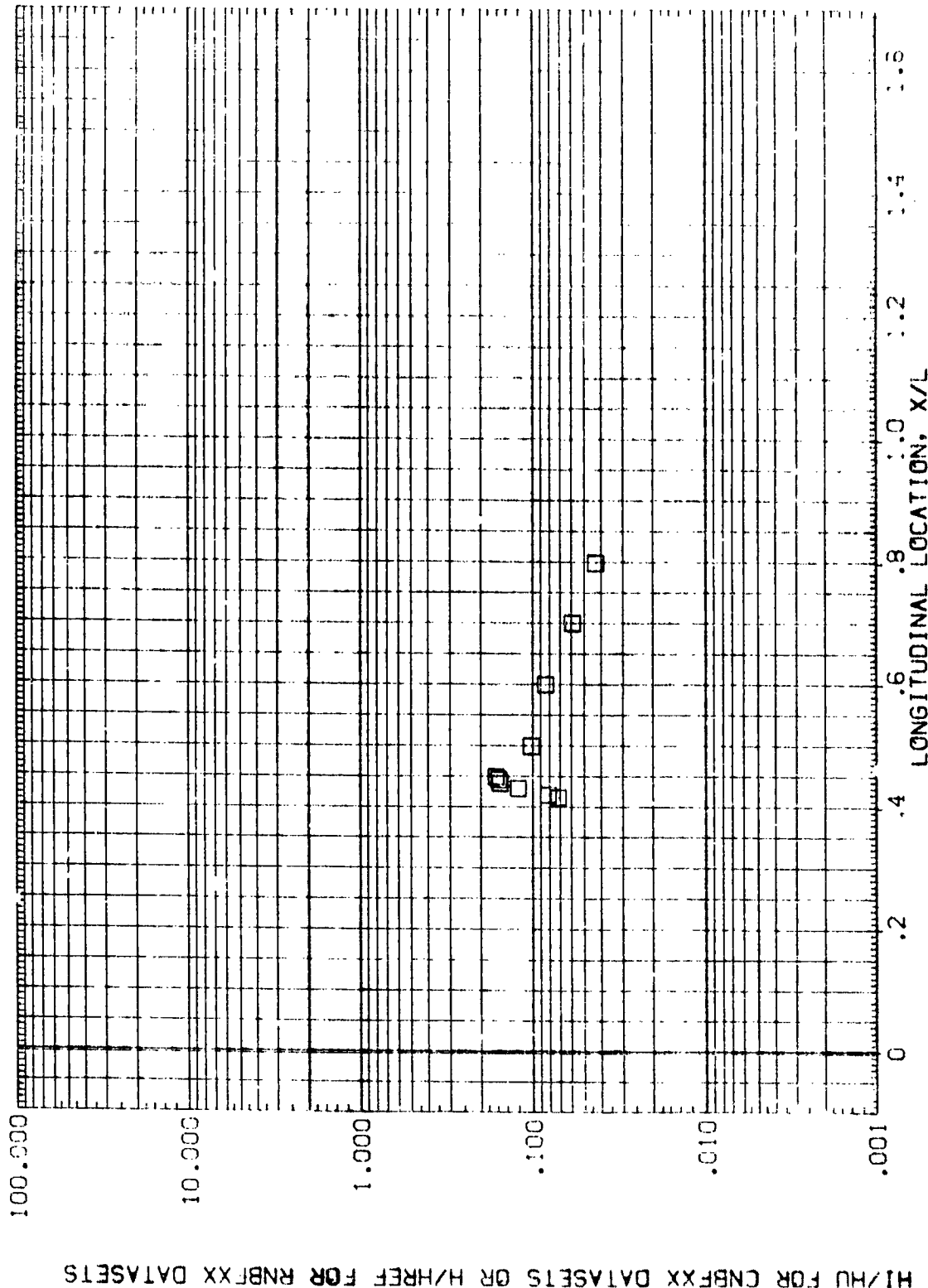


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.120

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBFO1) DATA NOT AVAILABLE  
 (RNBFO1) ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFF16) DATA NOT AVAILABLE

ALPHA BETA R/V/L  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 1.500

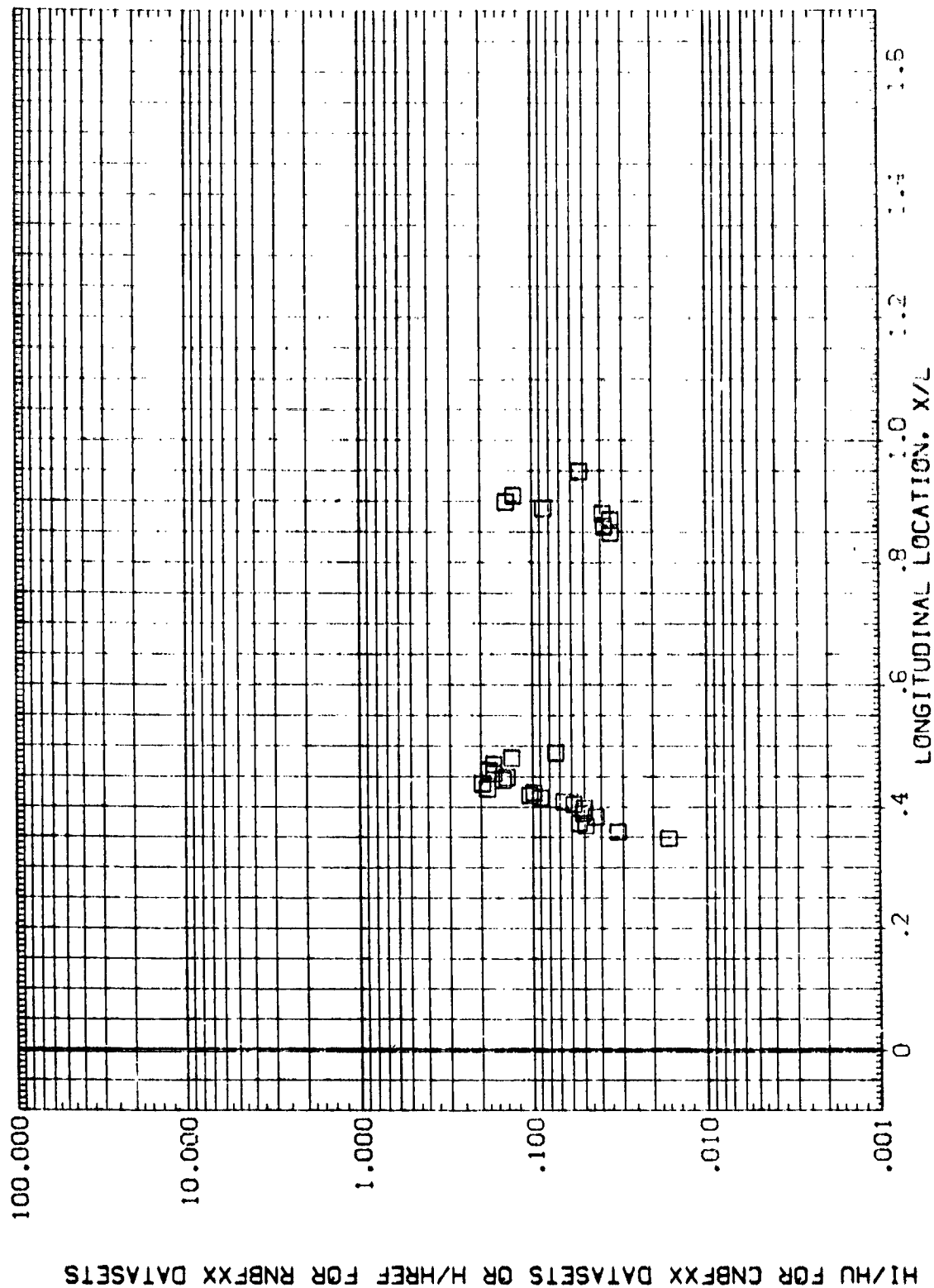


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAWAII = .900 PHI = 108.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBFO1) IH-48 (H/H) LABELED H/HREF) ET INTERFERENCE DAT  
(RNBFO1) ARC3.5-211(IH48)JTS/NIPPLE/P/ATRIIP(O+S) EXT TANK  
(RNBFI6) ARC3.5-211(IH48)JET /NIPPLE/CLEAN EXT TANK

ALPHA BETA RM/L  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 1.500

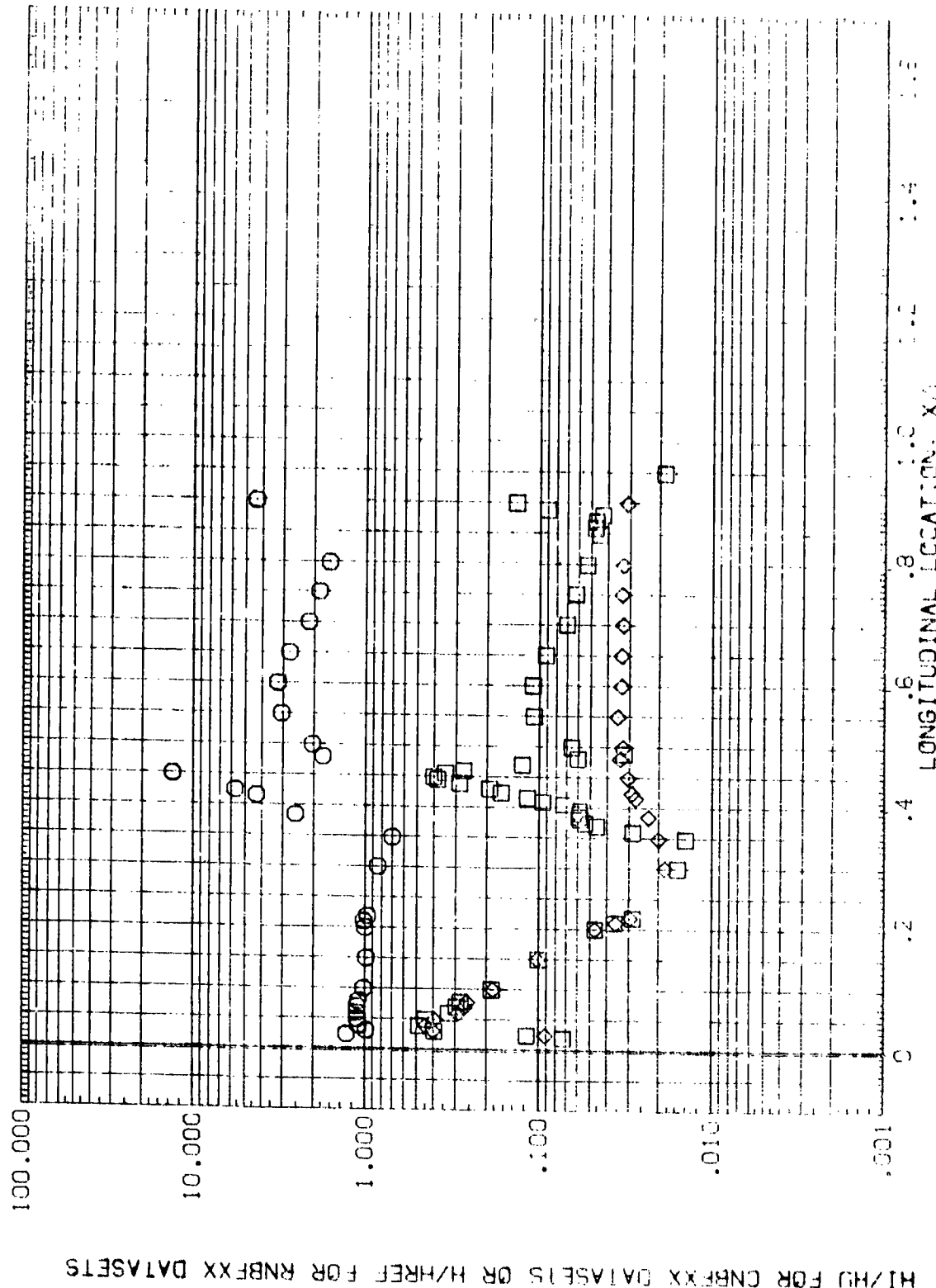


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/ITE .200 PHI = 180.000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBFD1)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      1.500

(RNBFD1)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      1.500

(RNBFD1)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

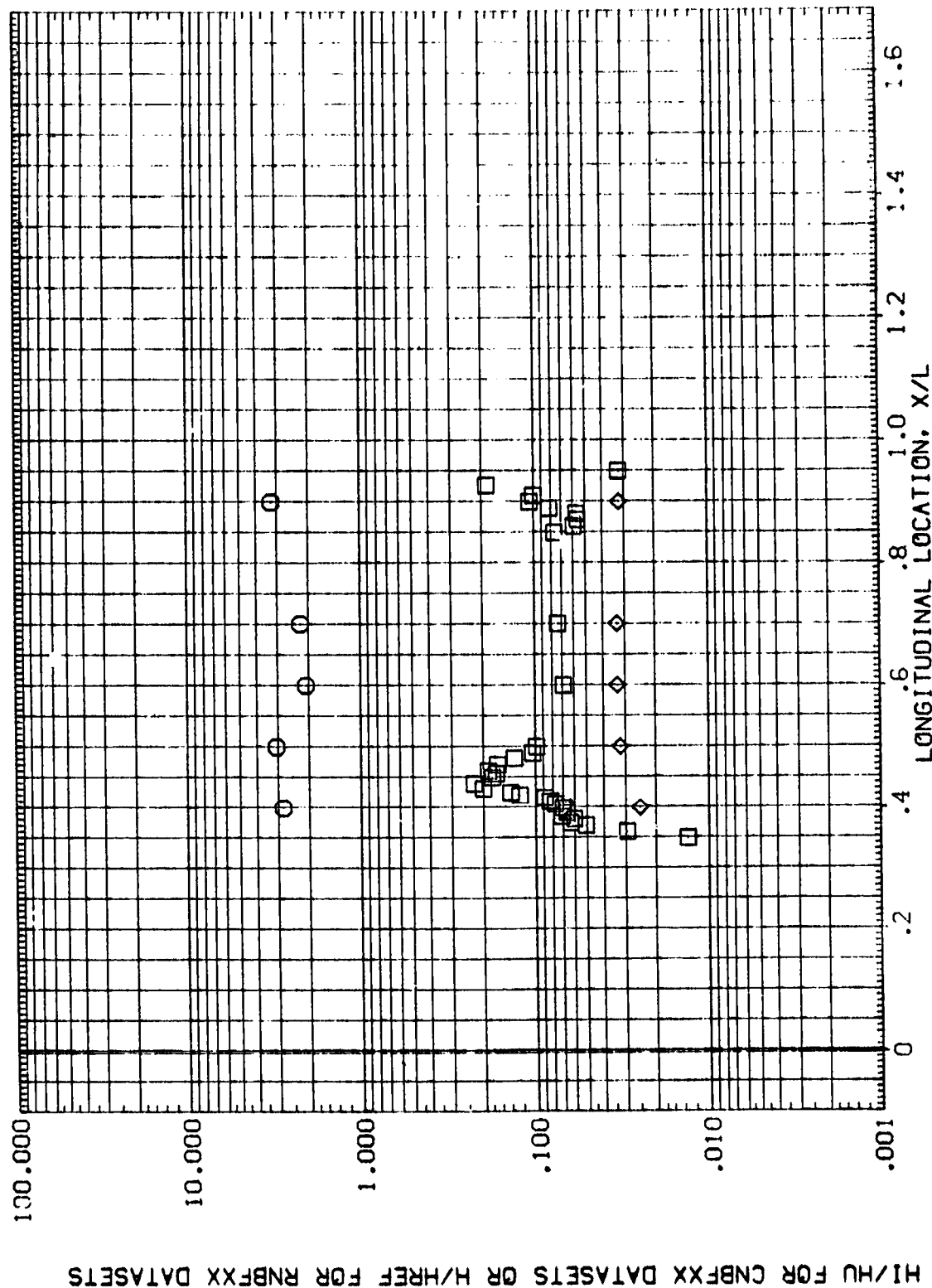


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 191.250

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF01)  
(CNBF01)  
(CNBF16)

DATA NOT AVAILABLE  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
DATA NOT AVAILABLE

ALPHA BETA RN/L  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 1.500

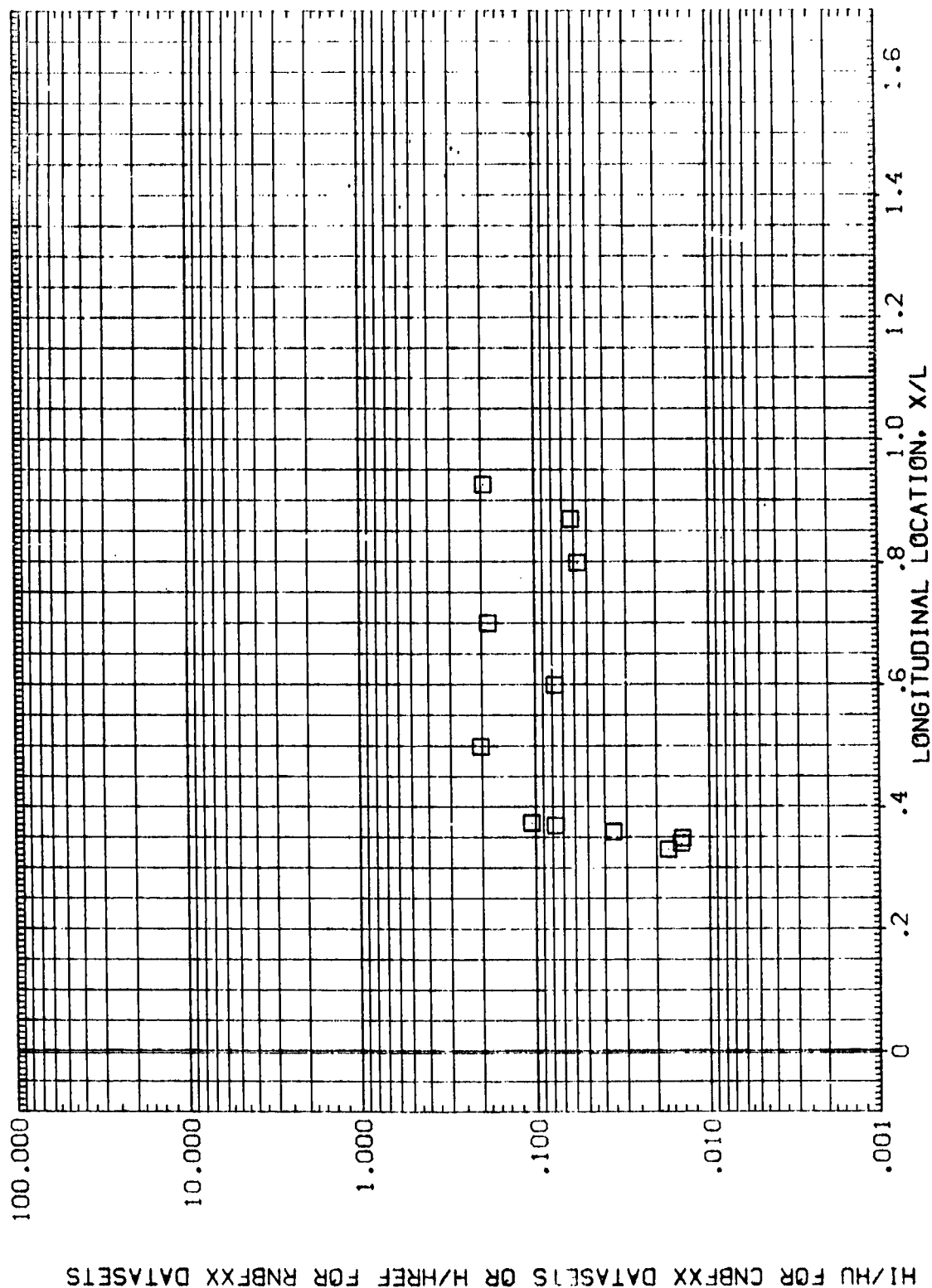


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 197.000

# DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(CNBF01)      DATA NOT AVAILABLE  
 (CNBF01)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (CNBF16)      DATA NOT AVAILABLE

ALPHA      BETA      RV/L  
 .000      .000      1.500  
 .000      .000      1.500  
 .000      .000      1.500

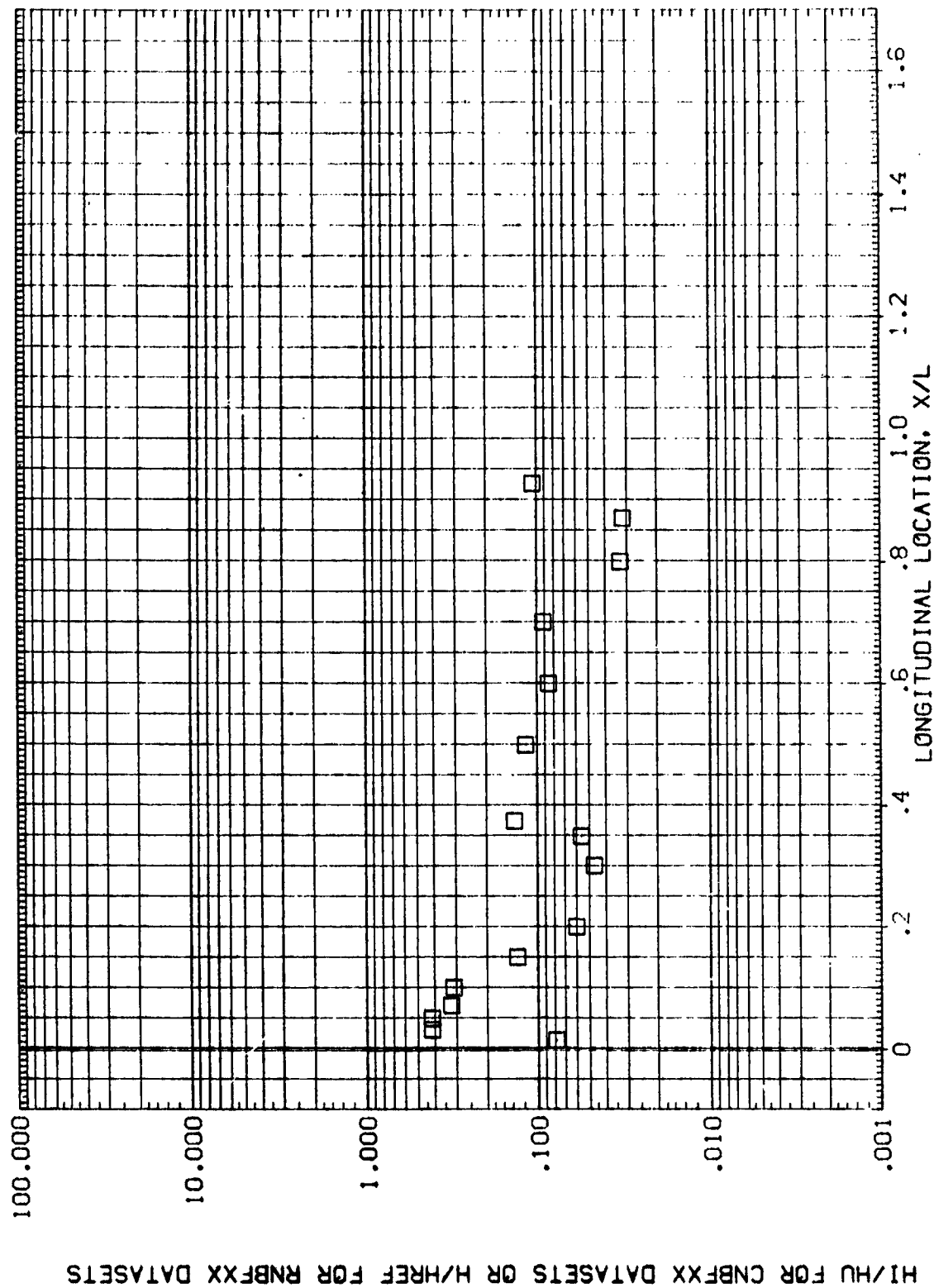


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(CNBFO1)    IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT    .000    .000    1.500

(RNBFO1)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK    .000    .000    1.500

(RNB316)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK    .000    .000    1.500

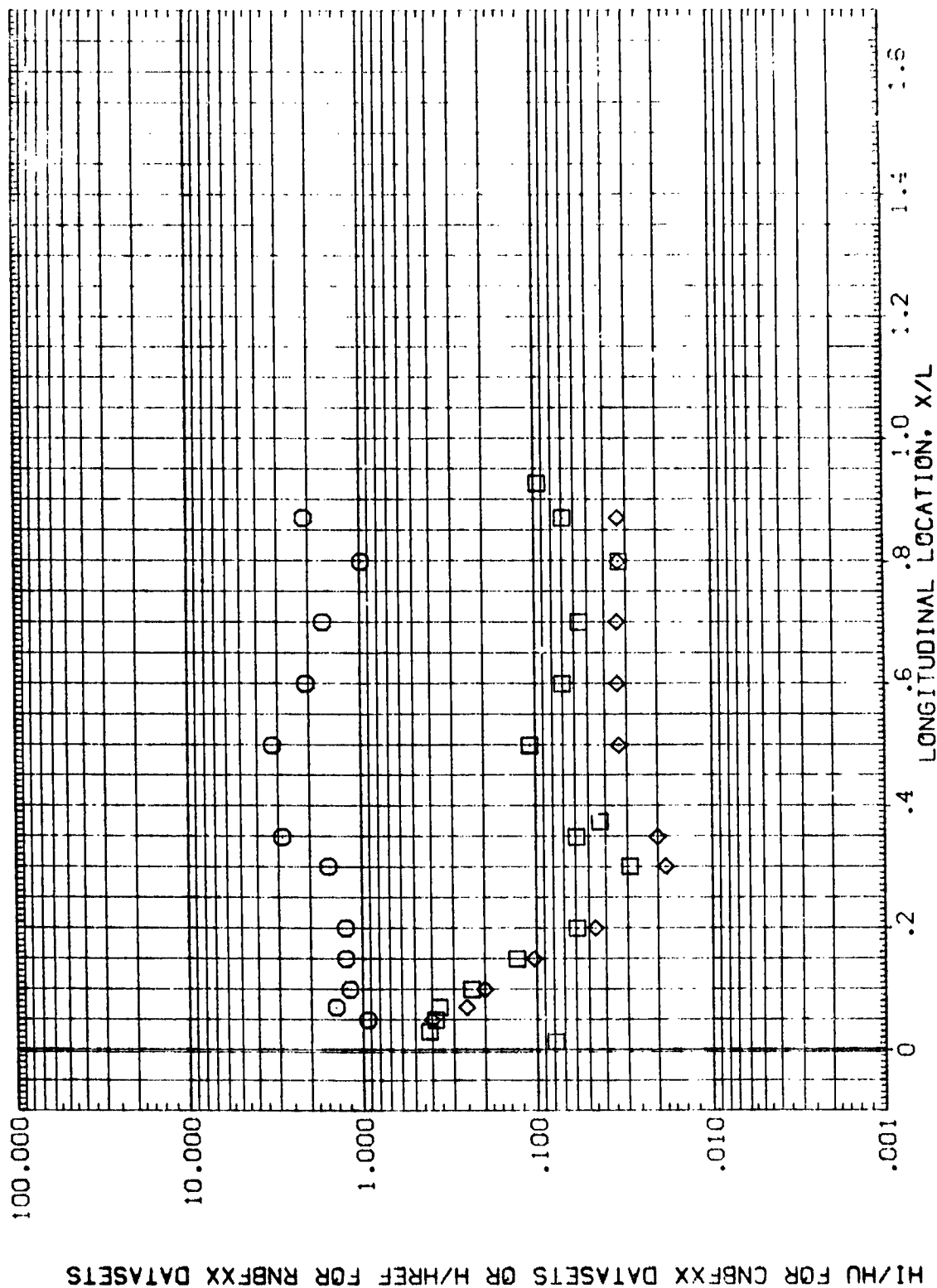


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/C

(CNBF02)      IH-48 (HI/HJ LABELED H/HREF) ET INTERFERENCE DAT      .003      .000      5.000

(RNB02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      5.000

(RNB17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

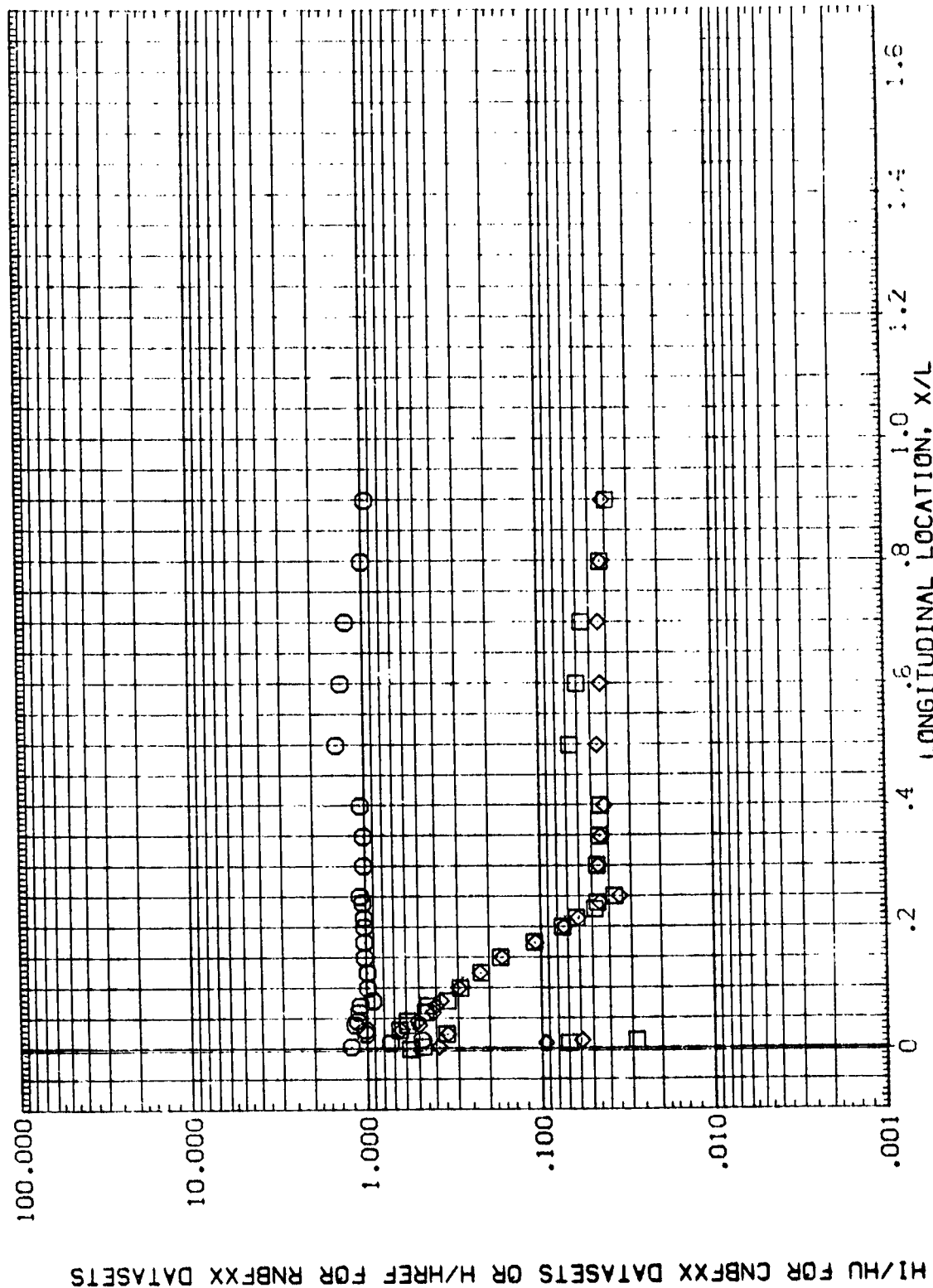


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF02)    DATA NOT AVAILABLE  
 (CNBF02)    ARC3.5-211(I+H)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (CNBF17)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

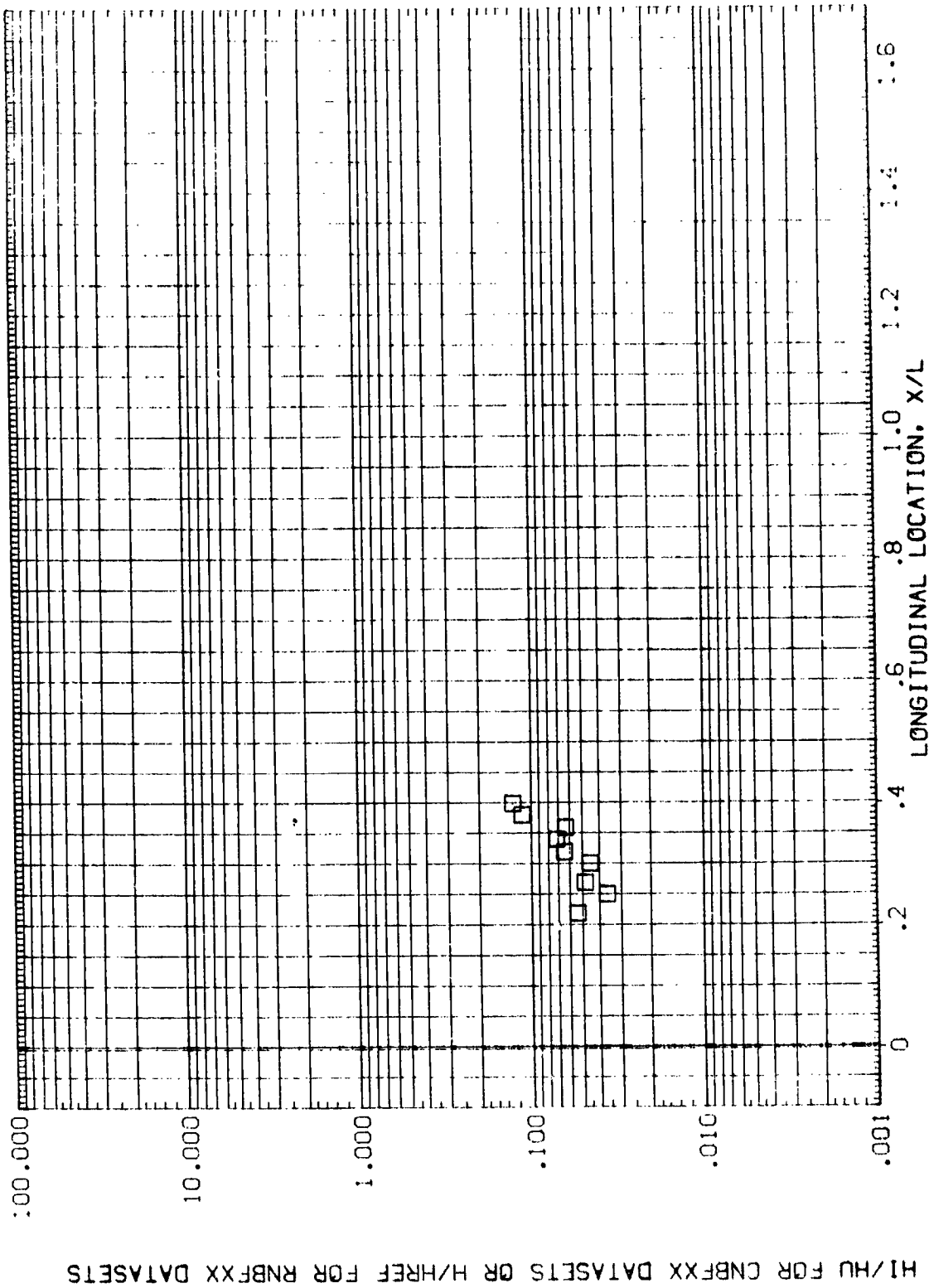


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 55.000    PAGE 104

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF02)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      5.000

(RNBFF02)      ARC3.5-211(IH48)OTS/NIPPLE/P/ATRIIP(O+S) EXT TANK      .000      .000      5.000

(RNBFF17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

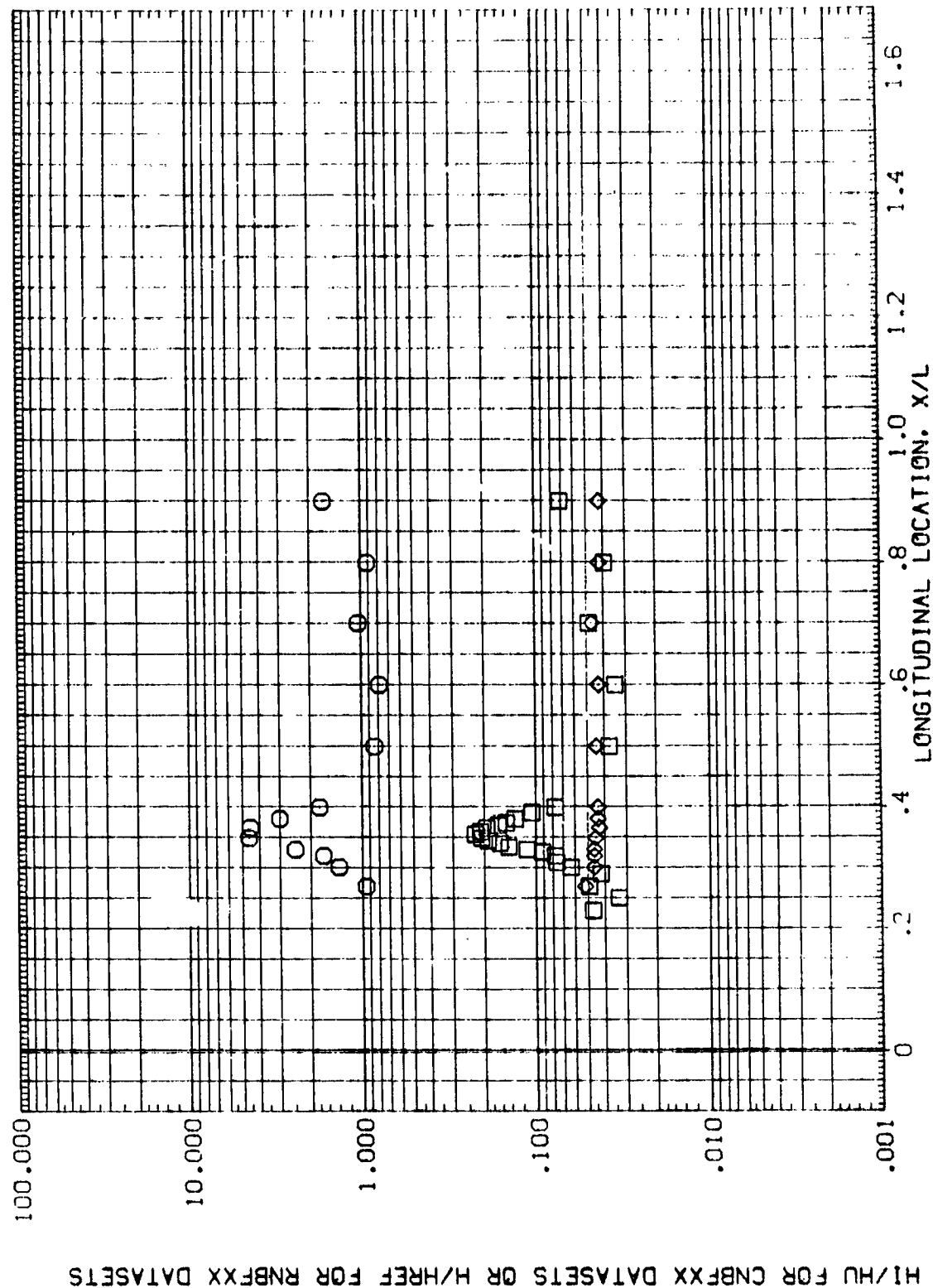


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF02)    DATA NOT AVAILABLE  
 (CNBF02)    ARCS-5-211(IH48)OTS/NIPPLE/P/TR(P(0+S) EXT TANK  
 (RNB02)    DATA NOT AVAILABLE  
 (RNB02)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

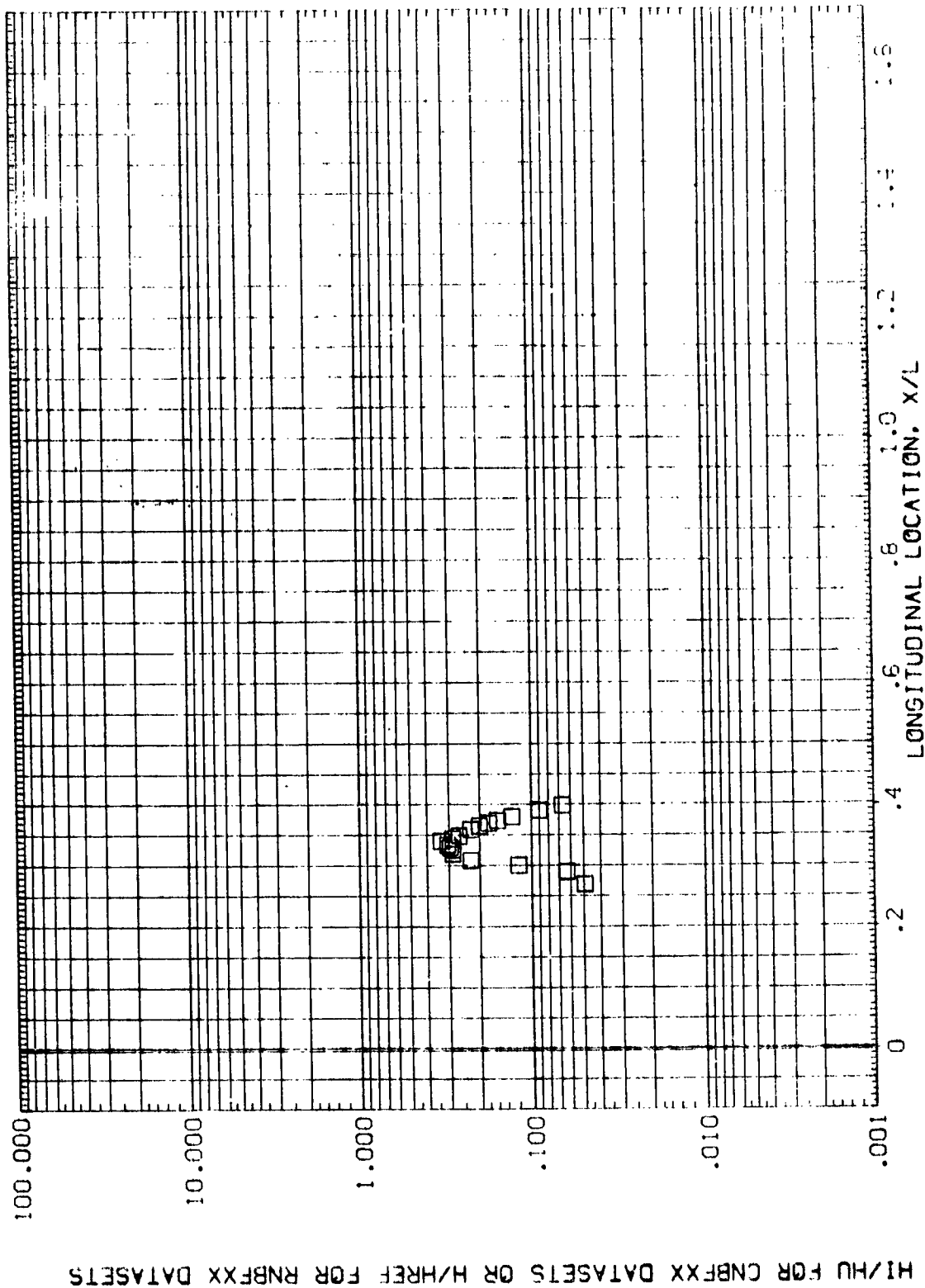


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 78.000    PAGE 106



# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF02) (CNBF02) (CNBF17)

IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK

ALPHA BETA RM/L  
.000 .000 5.000  
.000 .000 5.000  
.000 .000 5.000

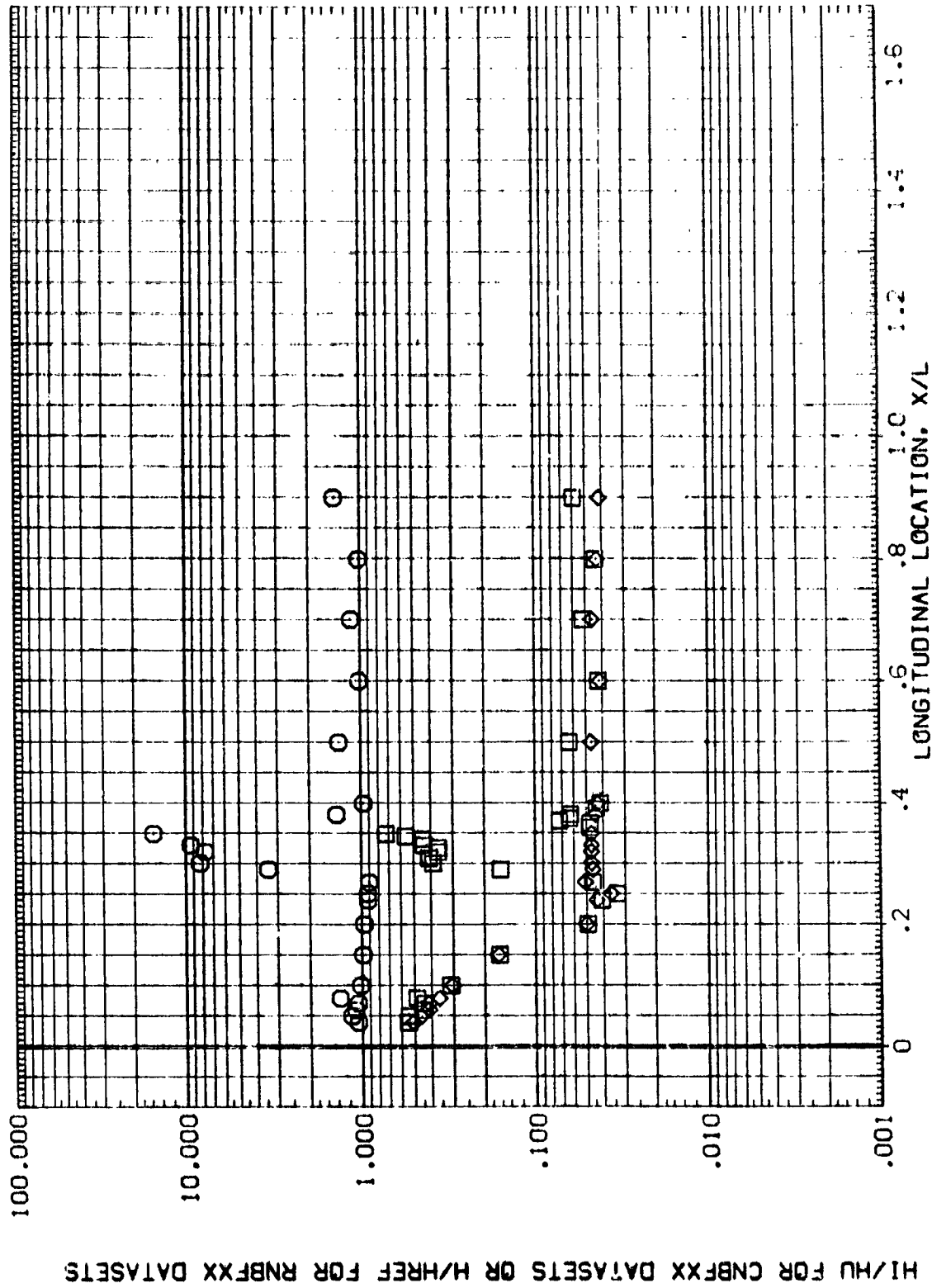


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

HI/HU FOR CNBFX DATASETS OR H/HREF FOR RNBFX DATASETS

LONGITUDINAL LOCATION, X/L

FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .12.500

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

[CNBF02] DATA NOT AVAILABLE  
 [CNBF02] APC3.5-211(TH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 [CNBF17] DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

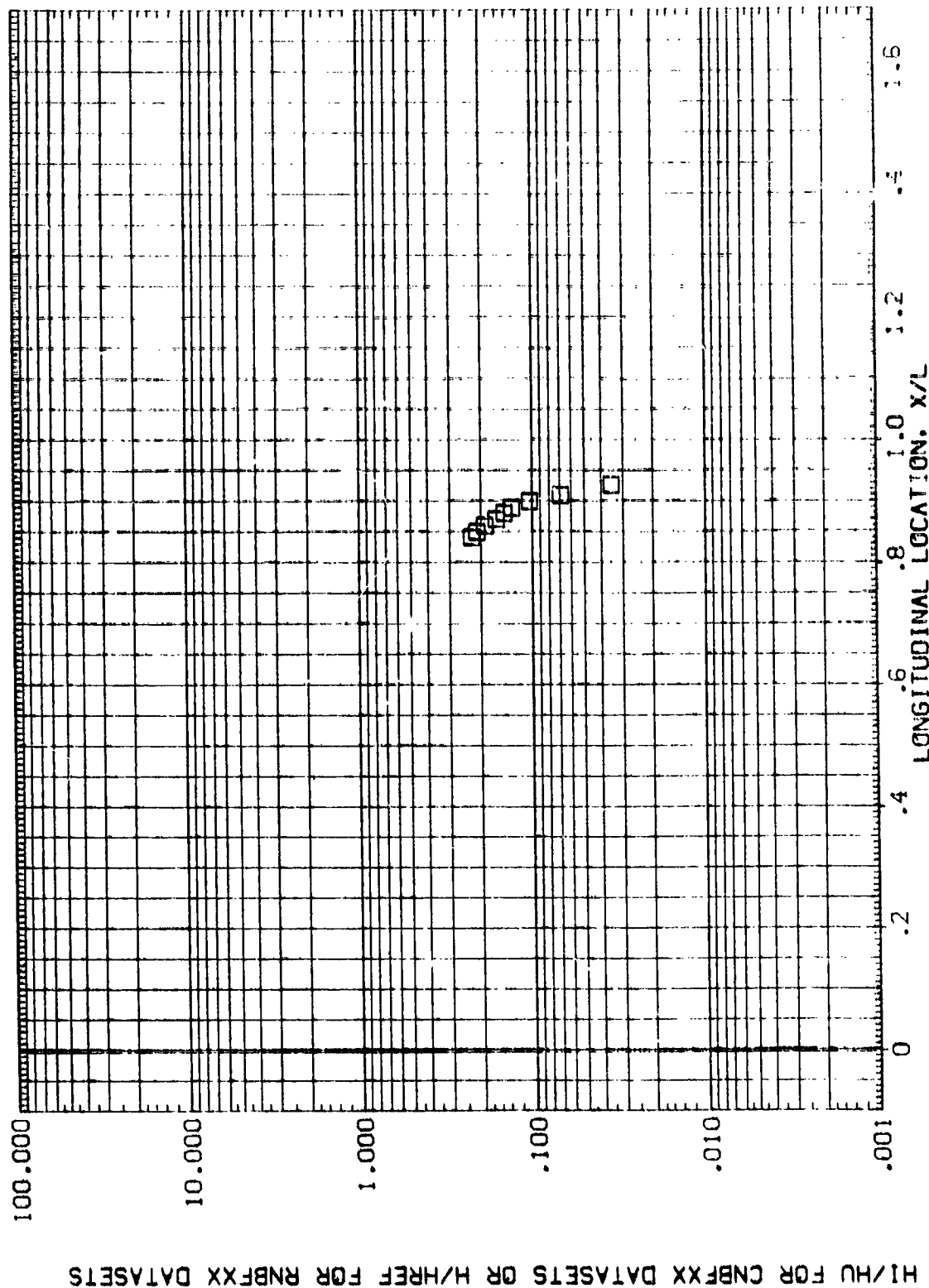


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CNBF02) DATA NOT AVAILABLE  
 (CNBF03) ARCS 5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNB017) DATA NOT AVAILABLE

ALPHA BETA GAMMA  
 .000 .000 .000  
 .000 .000 .000  
 .000 .000 .000

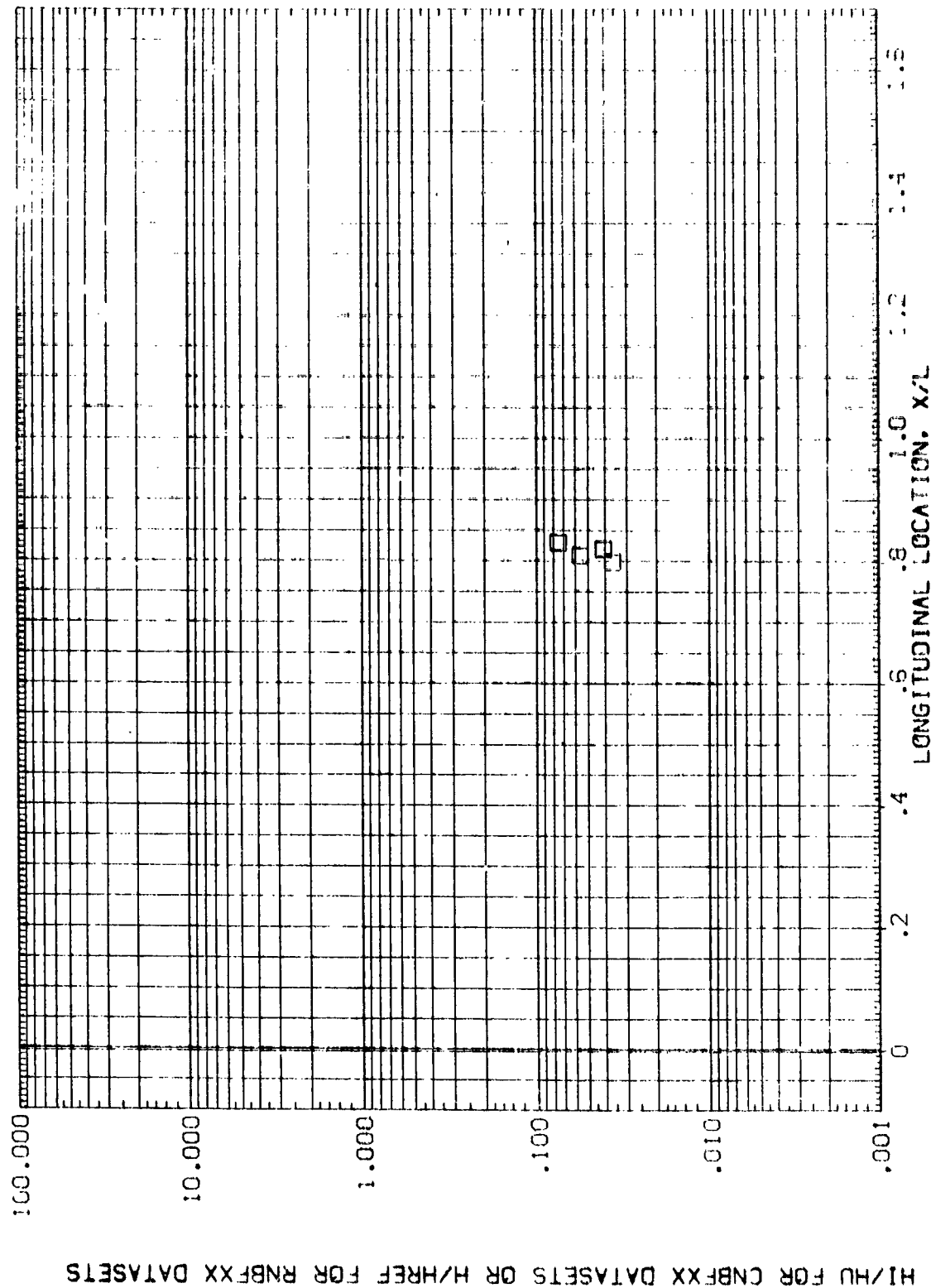


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HI = .900 PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      R<sub>N/L</sub>

(CNBF02)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .003      5.032

(CNBF02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .003      5.032

(RNBFT7)      ARC3.5-211(IH46)ET /NIPPLE/CLEAN      .000      .003      5.033

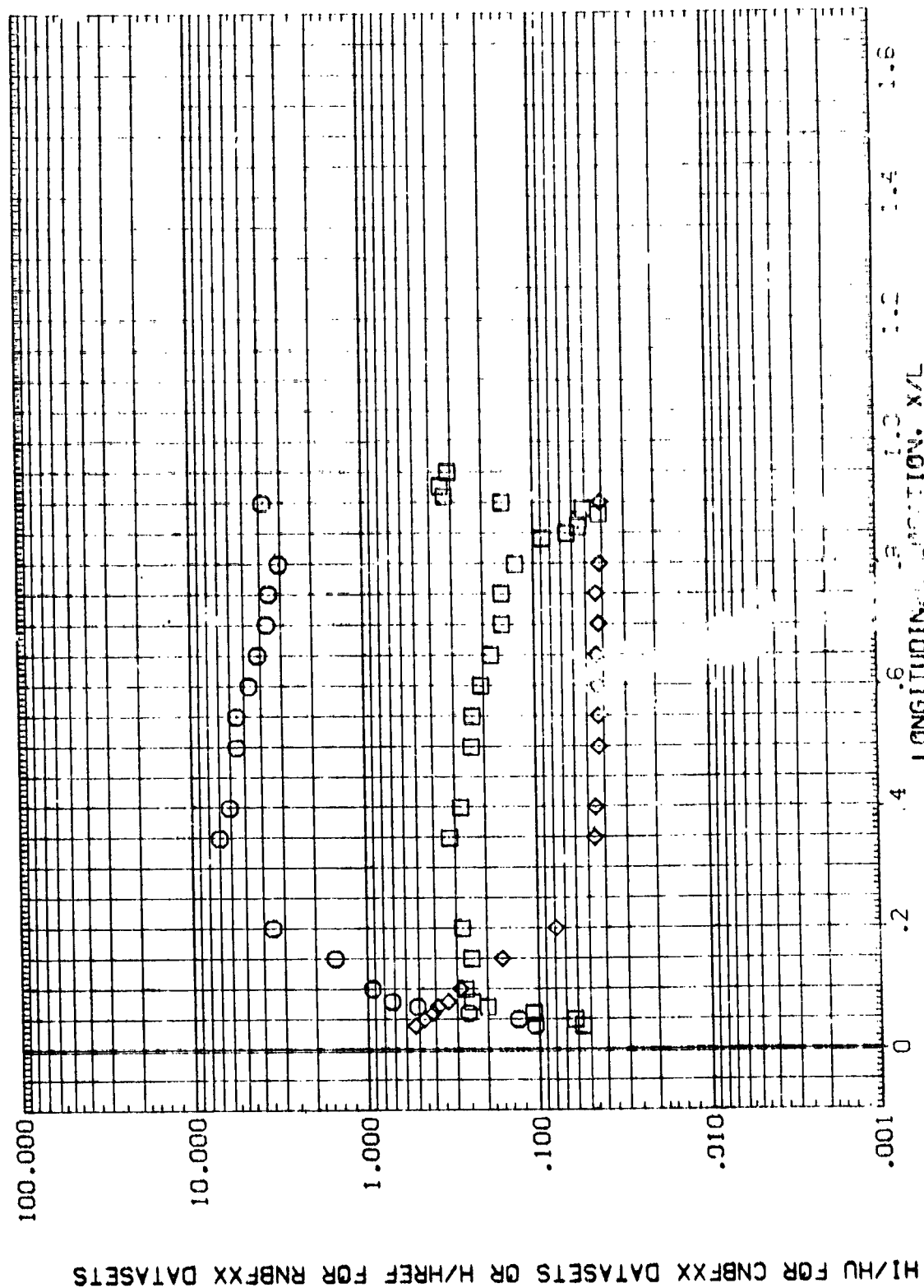


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 F+I = 135.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBFO2)      DATA NOT AVAILABLE  
 (RNBFO2)      ARC3.5-211(LH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI7)      DATA NOT AVAILABLE

ALPHA      BETA      RV/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

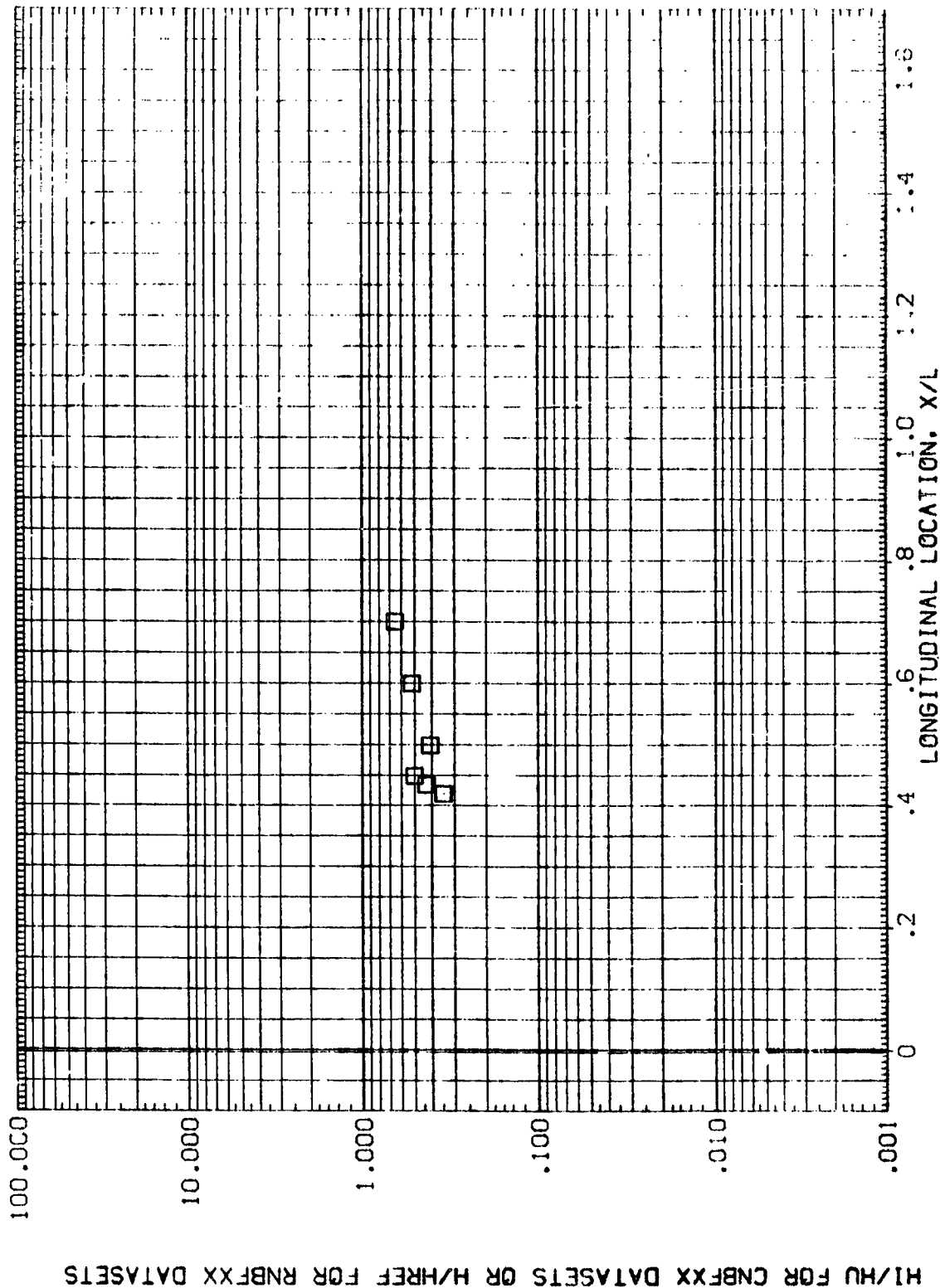


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 142.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(CNBF02)	IH-48 (M1/HU LABELED H/HREF) ET INTERFERENCE DAT	.000	.000	5.000
(RNB02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(RNB17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000

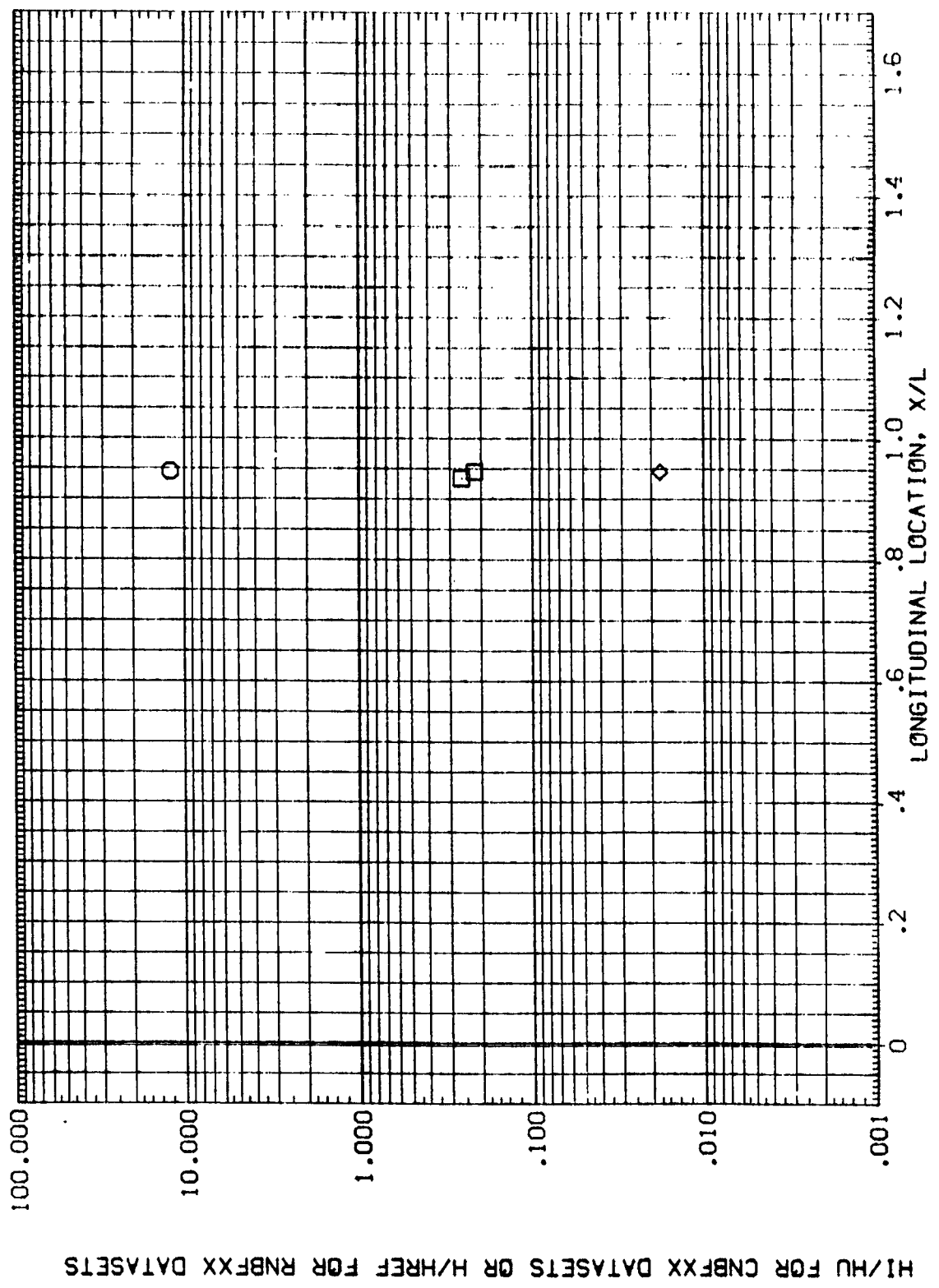


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT= .900 PHI = 154.980

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF02)  
(CNBF02)  
(CNBF17)

DATA NOT AVAILABLE  
ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
DATA NOT AVAILABLE

ALPHA BETA RN/L

.000 .000 5.000  
.000 .000 5.000  
.000 .000 5.000

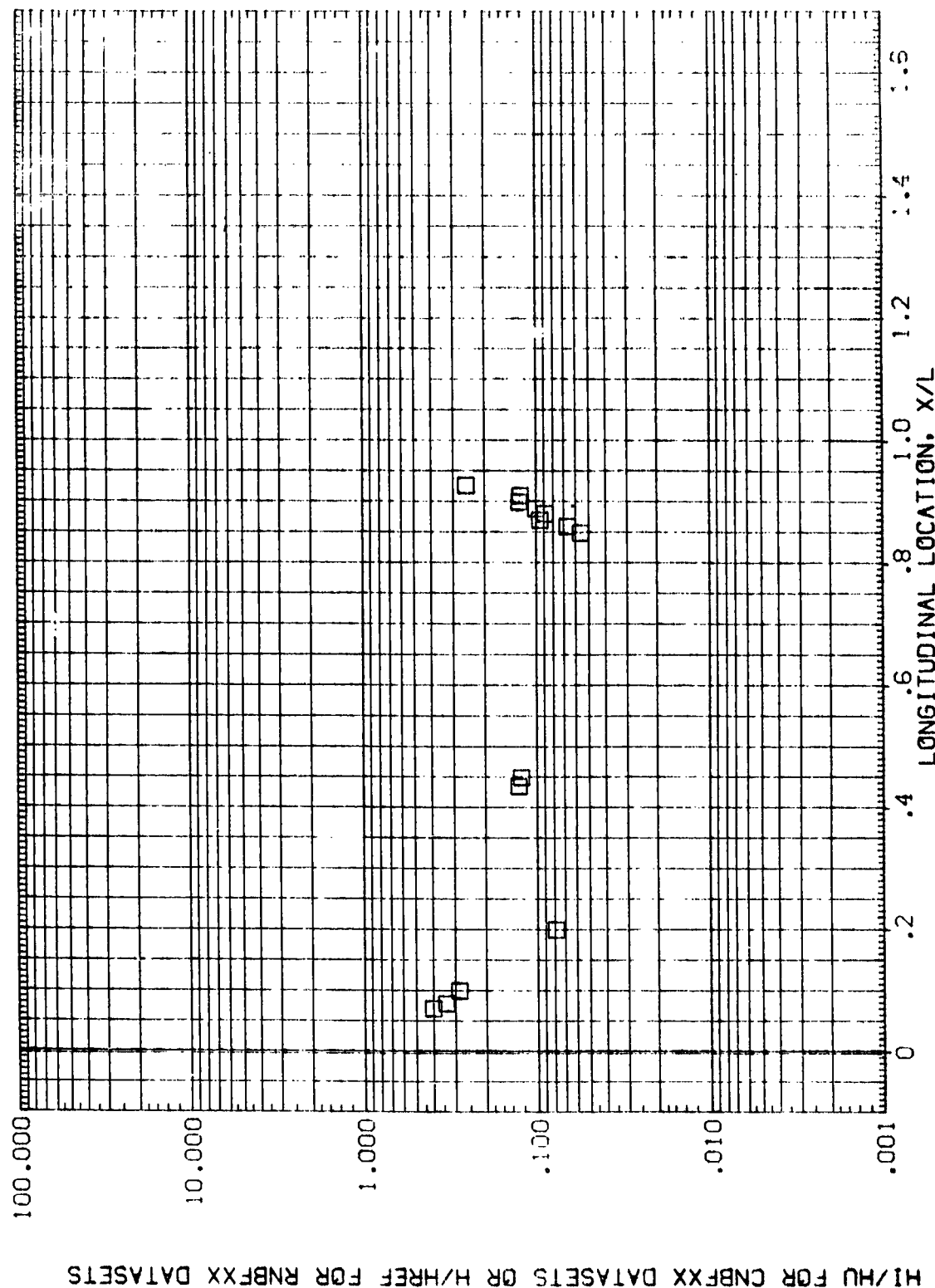


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 157.500



# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF02) DATA NOT AVAILABLE  
 (CNBF02) ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (CNBF17) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

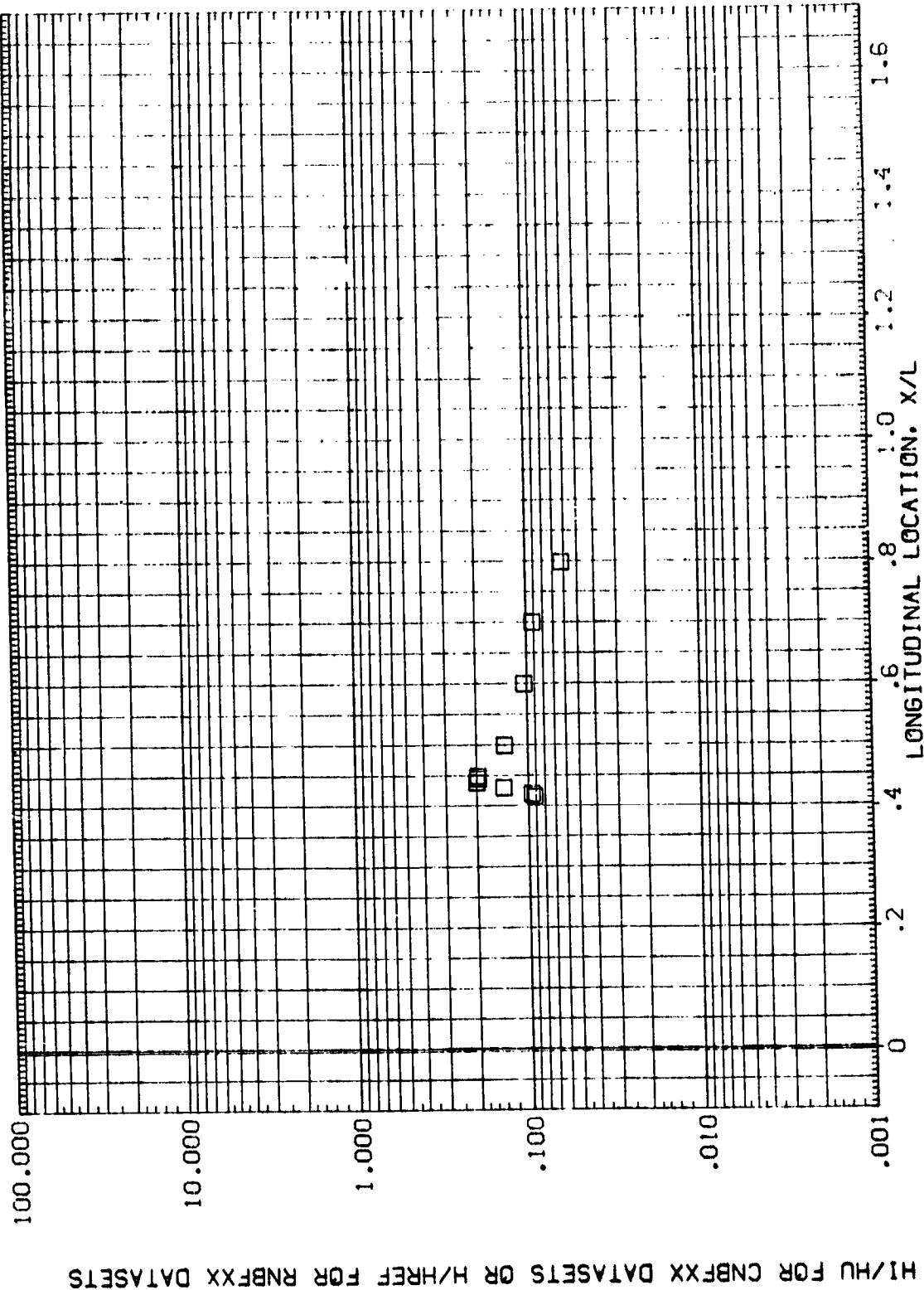


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF02)      DATA NOT AVAILABLE  
 (CNBF02)      ARC3-S-211 (1M48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFI7)      DATA NOT AVAILABLE

ALPHA      BETA      RNU/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

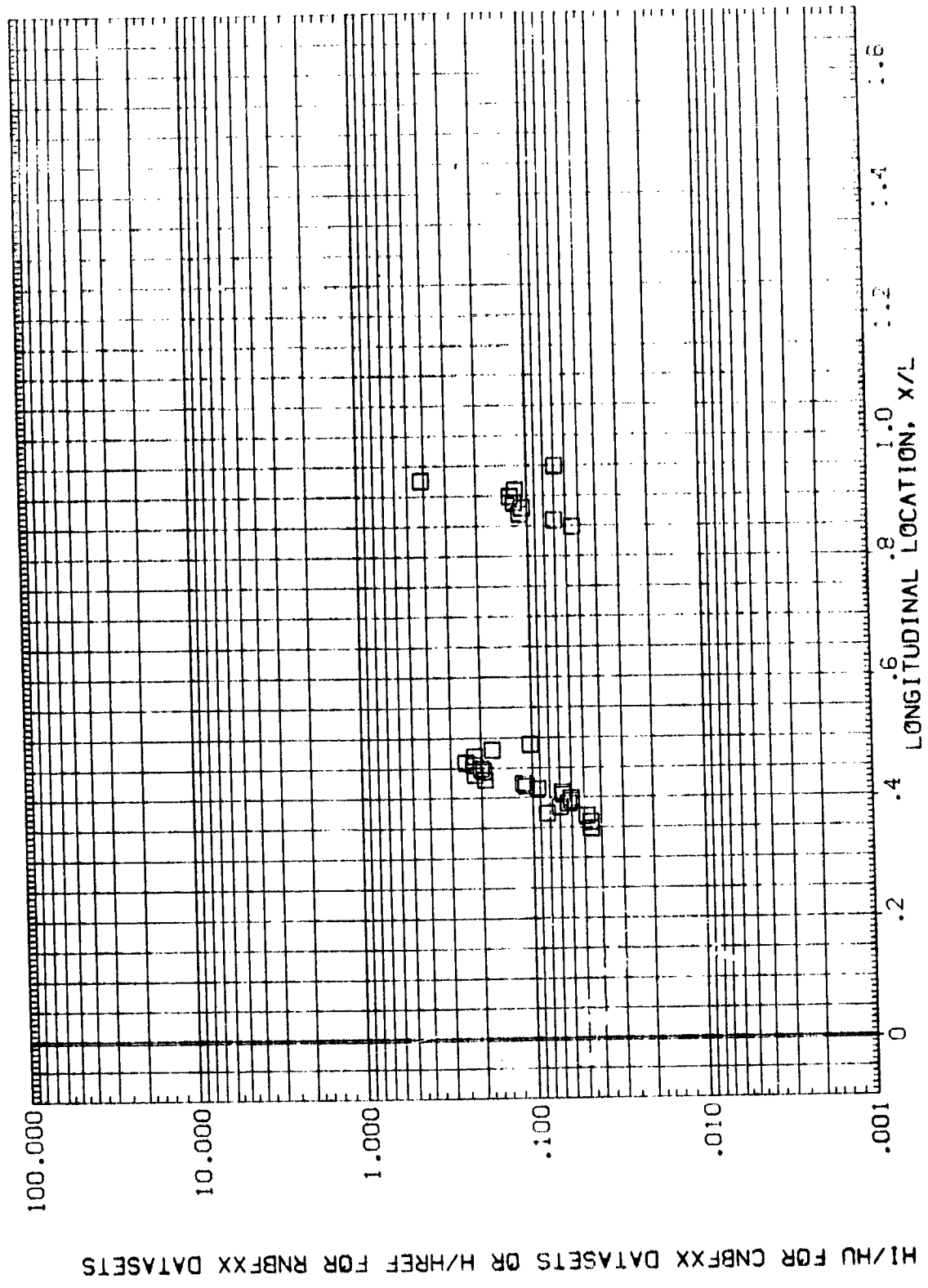


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 168.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CHBF02) IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT  
 (RNBFO2) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI7) ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA BETA RM/L

.000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

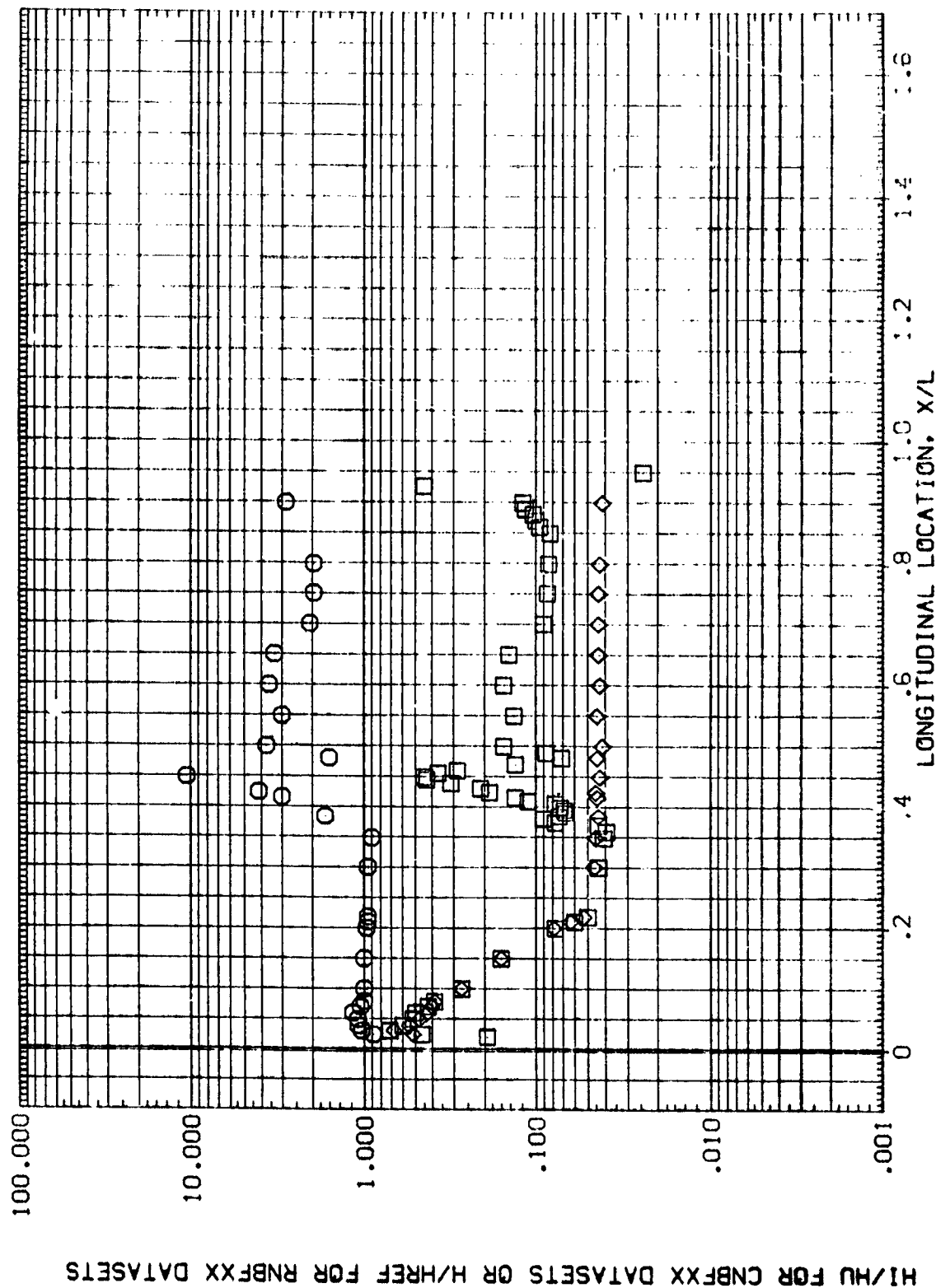


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 130.000

DATA SET SYMBOL: (CNBF02) (CNBF02) (CNBF17)

CONFIGURATION DESCRIPTION: IM-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT  
 ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA: .000 .000 .000

BETA: .000 .000 .000

RN/L: 5.000 5.000 5.000

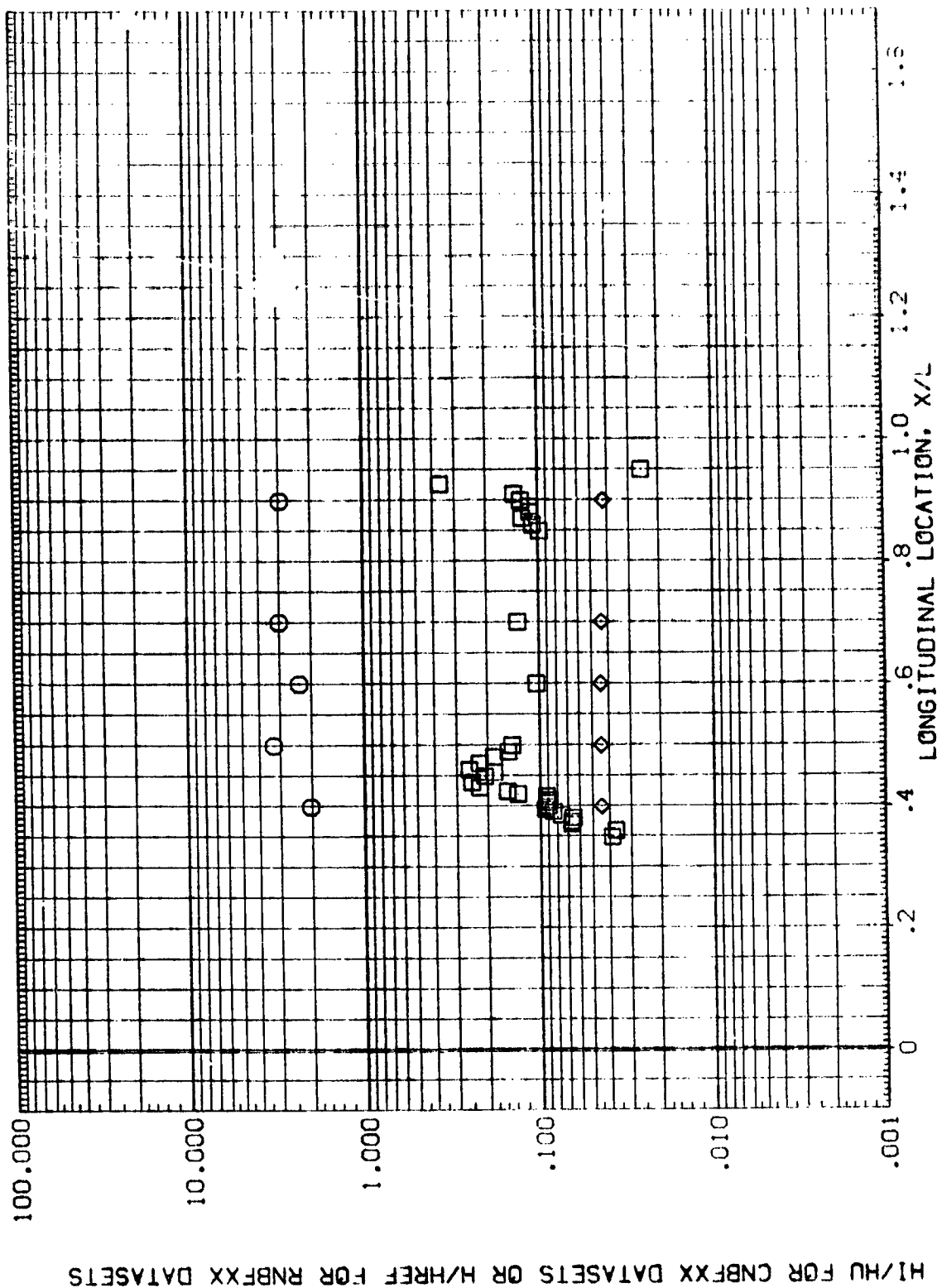


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

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DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF02)    DATA NOT AVAILABLE  
 (CNBF02)    ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (CNBF17)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

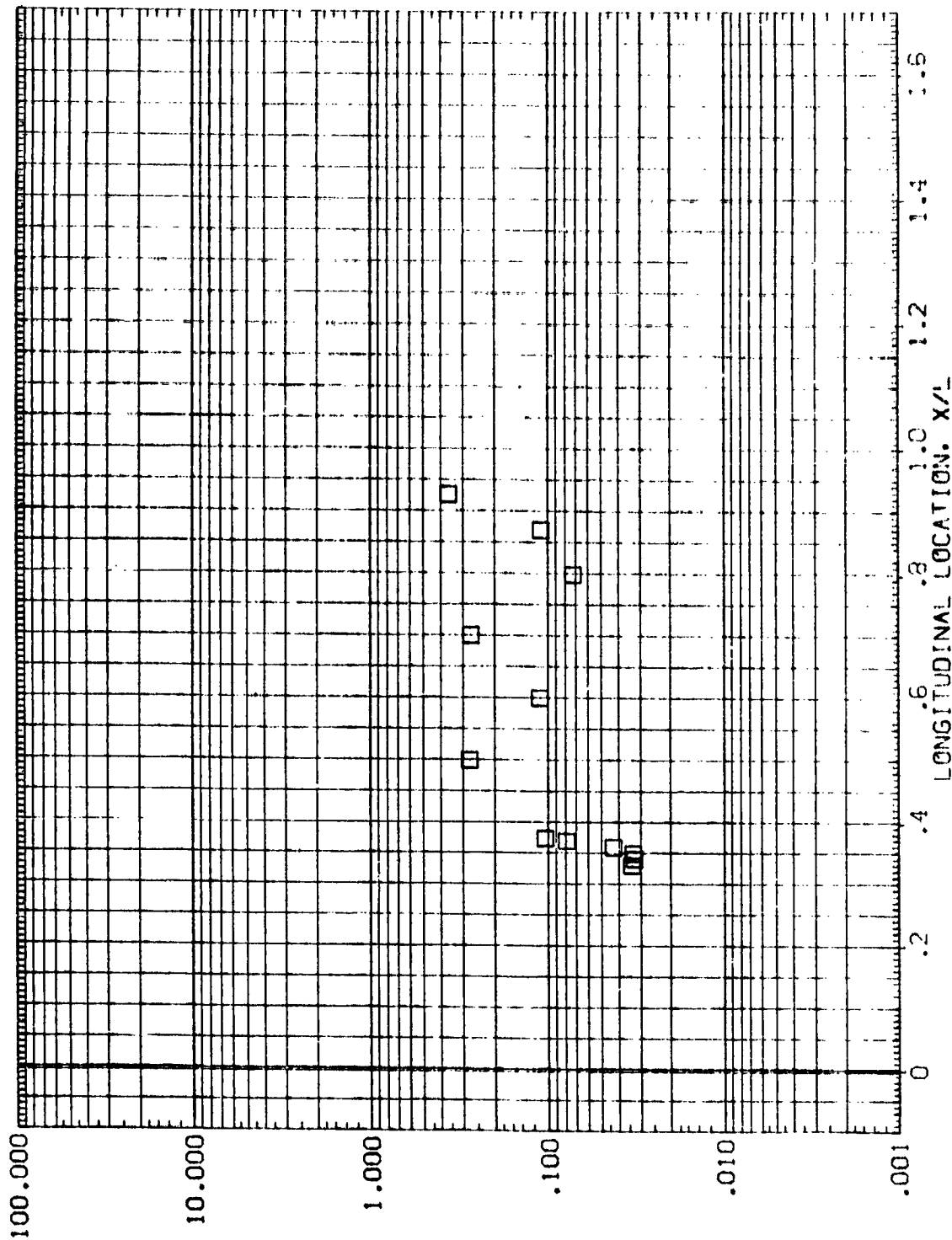


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 197.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF02)      DATA NOT AVAILABLE  
 (RNB02)      ARC3.5-2111(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNB17)      DATA NOT AVAILABLE

ALPHA      BETA      RM/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

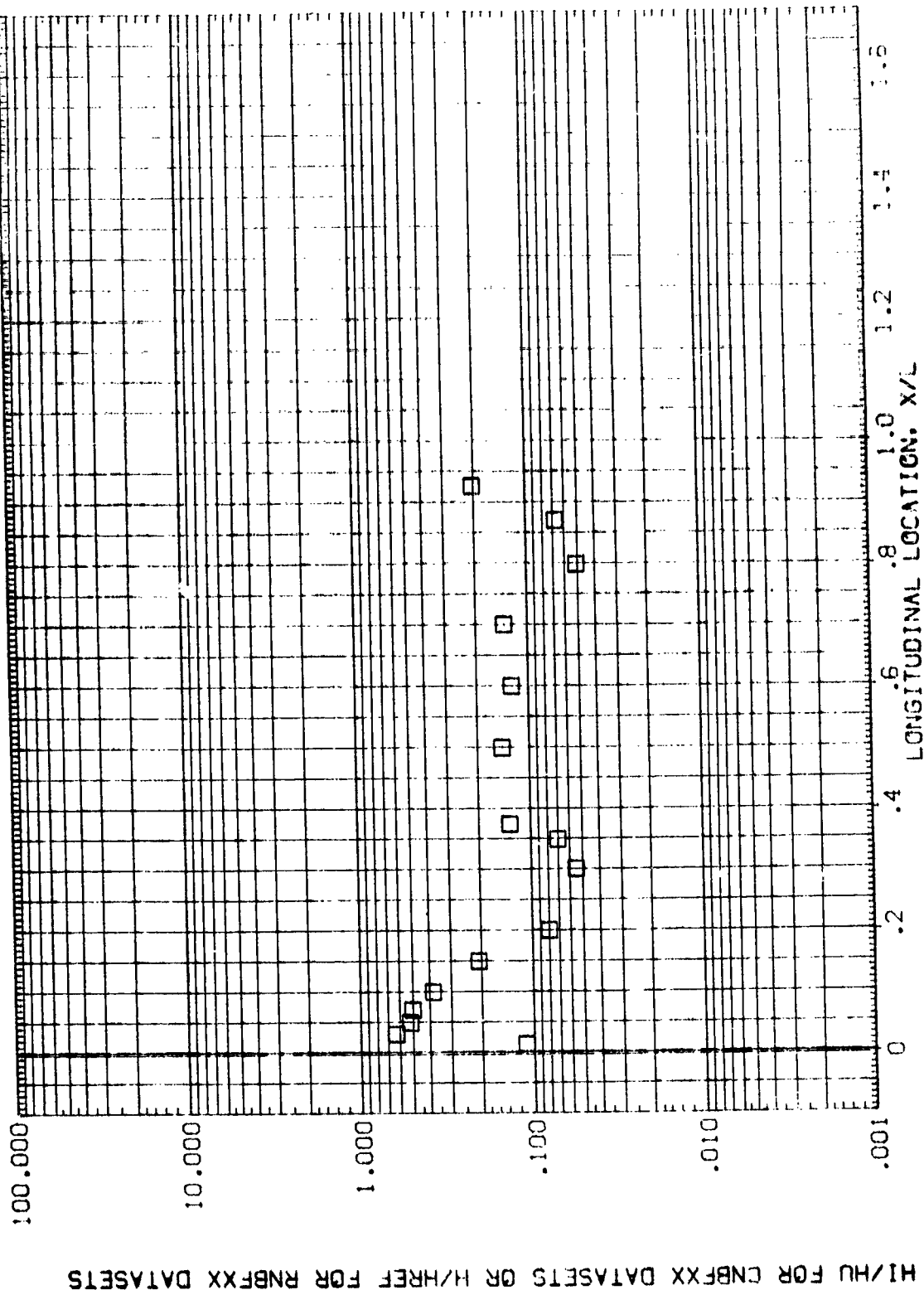


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RV/L

(CNBF02)      IH-48 (H1/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      5.000

(CNBF02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000

(CNBF17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

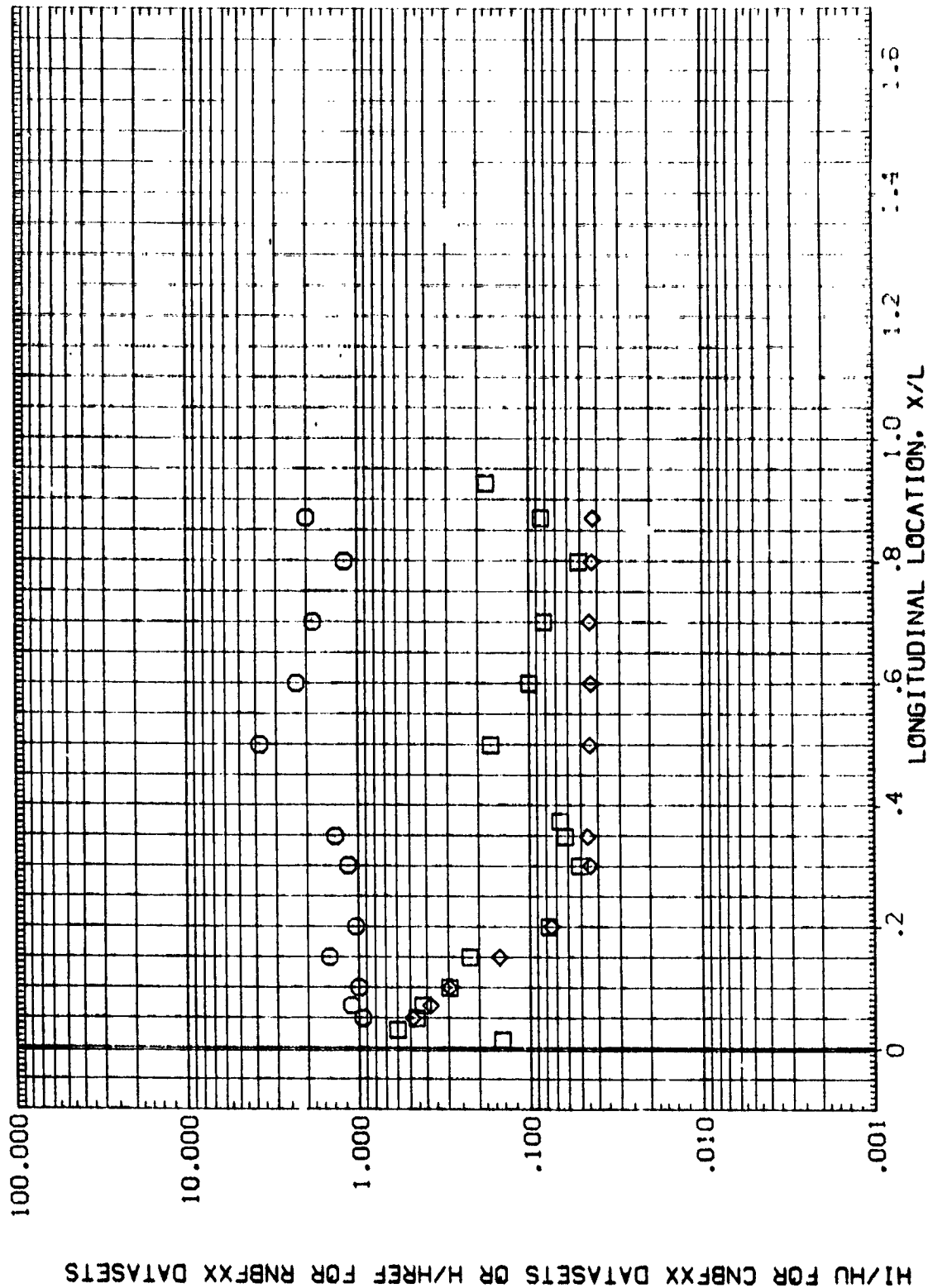


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 217.700

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF03)  
(CNBF03)  
(CNBF18)

IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT  
ARC3.5-211(IH48)OTS/NIPPLE/CLEAN  
ARC3.5-211(IH48)ET /NIPPLE/CLEAN

□  
◇

ALPHA BETA RV/L  
-5.000 .000 5.000  
-5.000 .000 5.000  
-5.000 .000 5.000

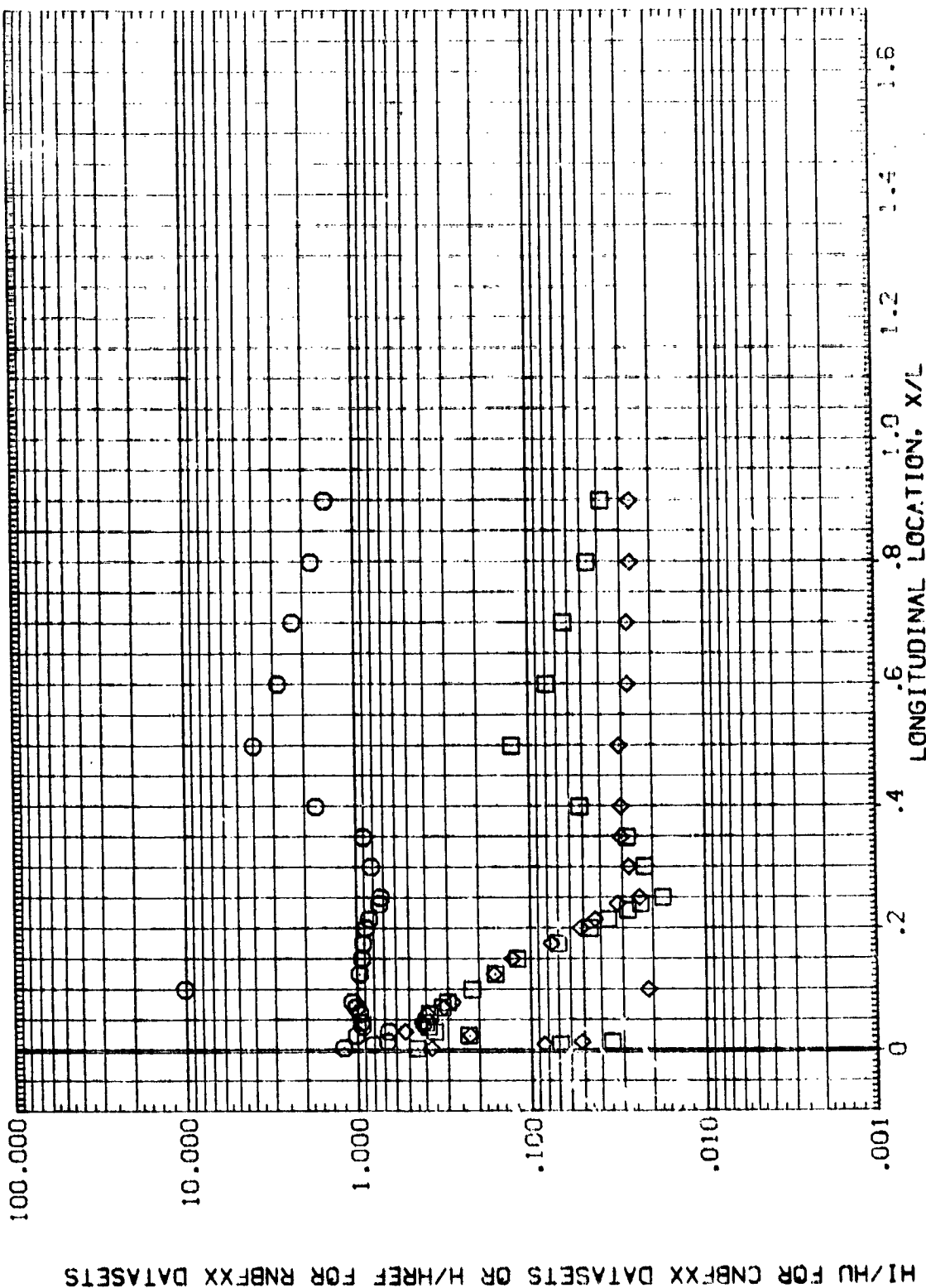


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF03)      DATA NOT AVAILABLE  
 (RNB03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNB18)      DATA NOT AVAILABLE

ALPHA      BETA      RIN<sup>2</sup>  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

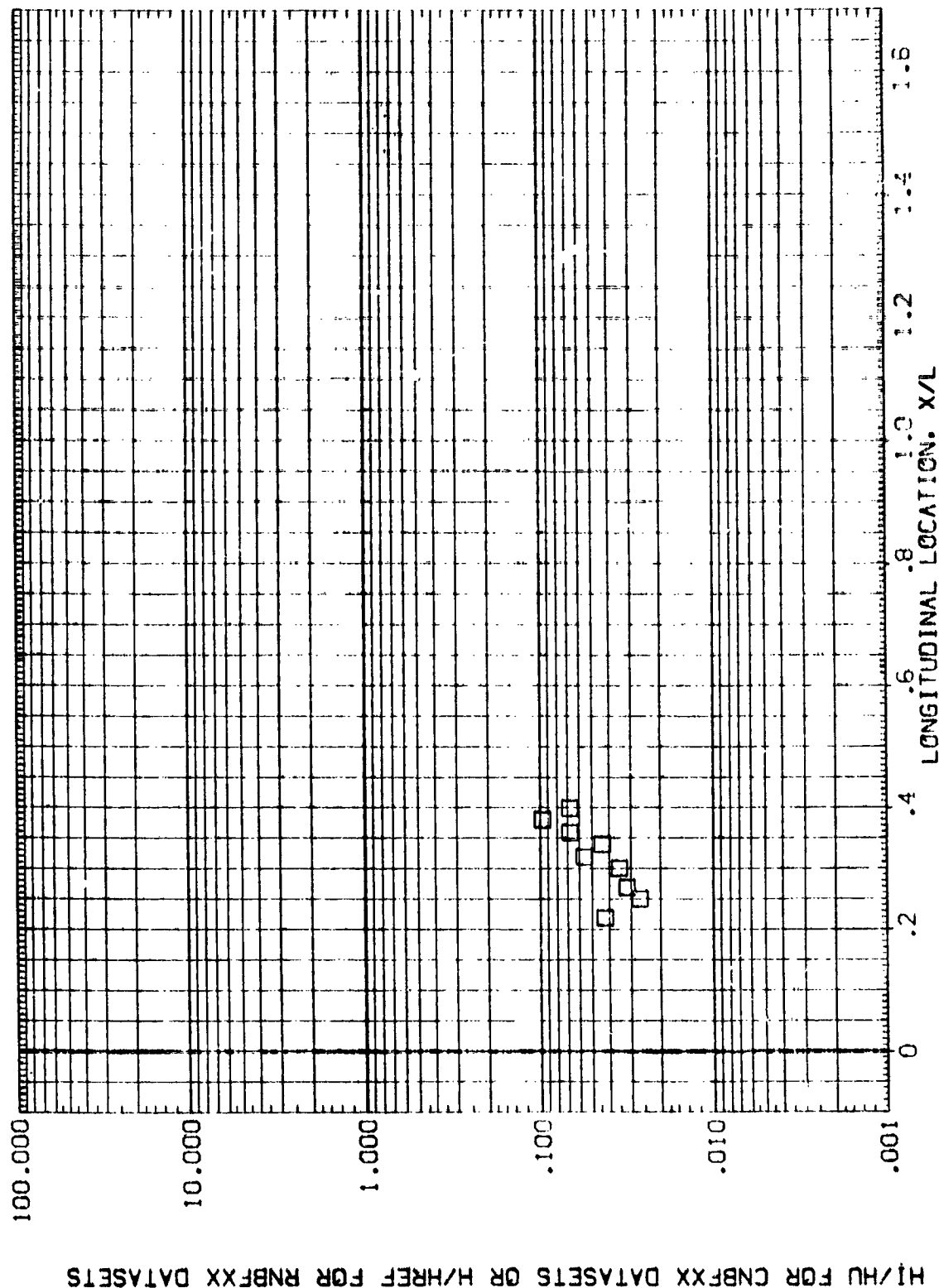


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      H/W/HT = .000      PHI = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      SE      RAY

(CNBF03)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(OTS) EXT TANK      -5.000      .000      5.000

(RNB18)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

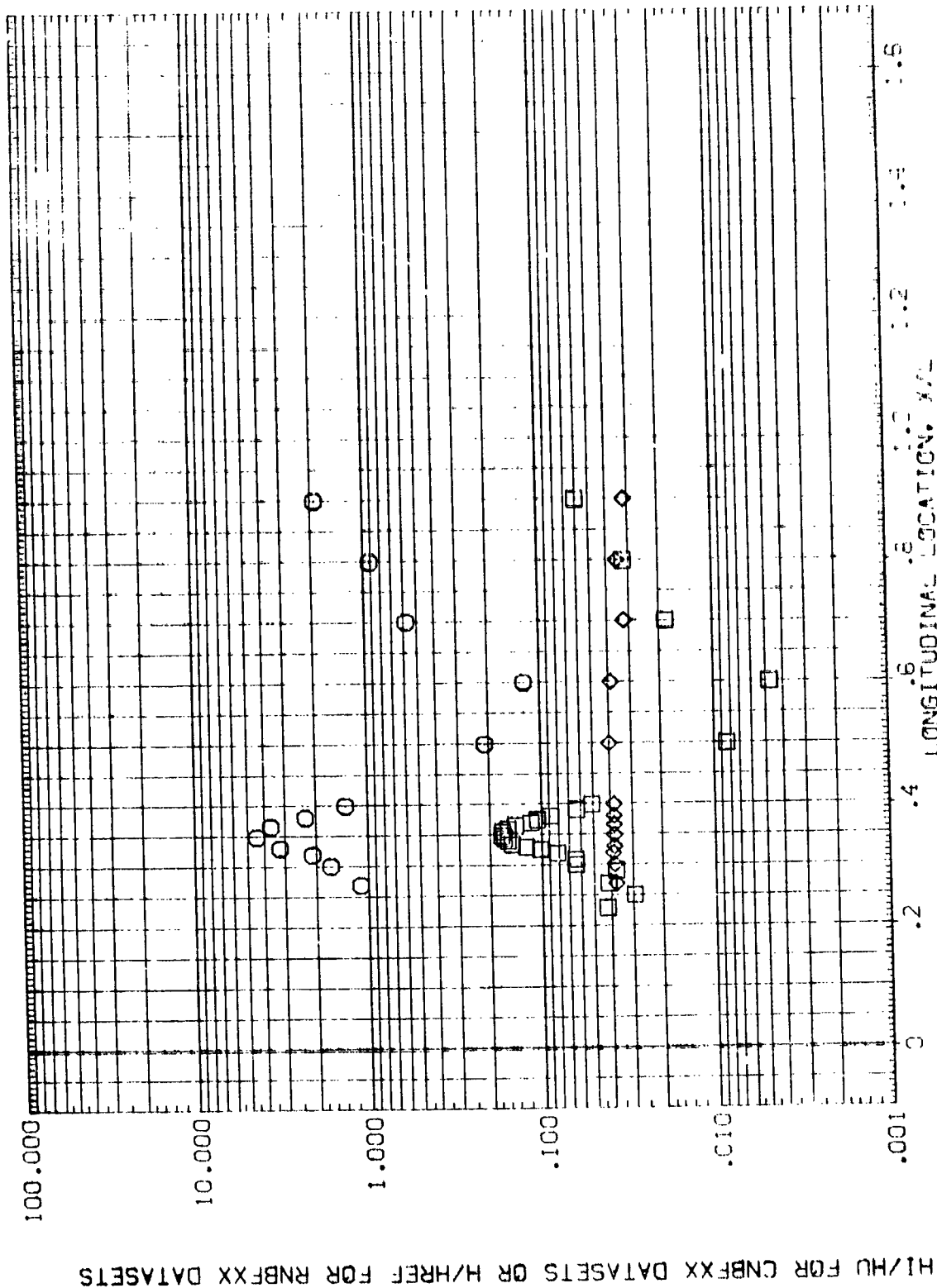


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF03)    DATA NOT AVAILABLE  
 (RNBFF03)    APC3-5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFF18)    DATA NOT AVAILABLE

ALPHA    BETA    R/V/L  
 -5.000    .000    5.000  
 -5.000    .000    5.000  
 -5.000    .000    5.000

HI/HU FOR CNBFFX DATASETS OR H/HREF FOR RNBFFX DATASETS

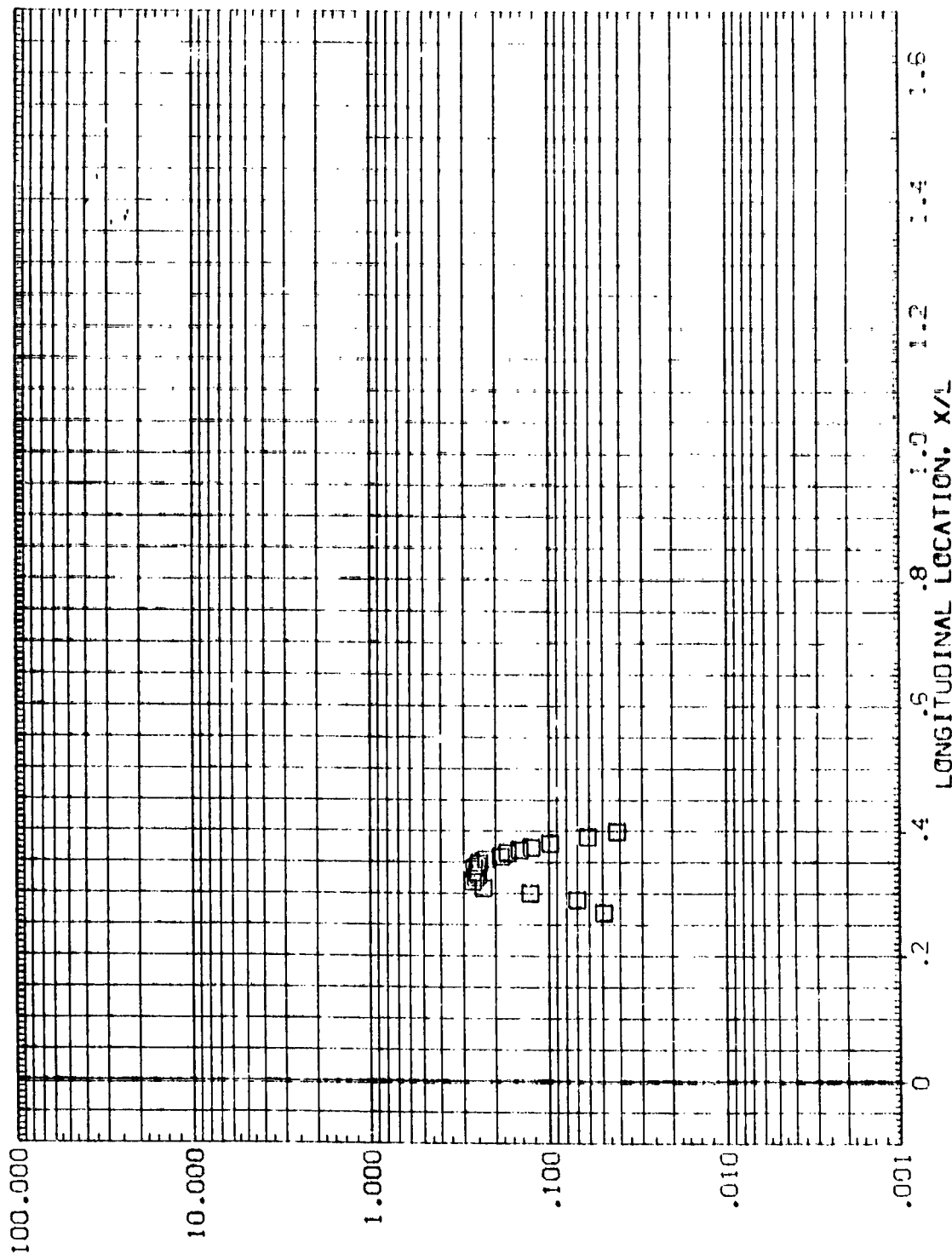


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HIF = .900    PH = 78.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF03)      IH-48 (H1/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000

(RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

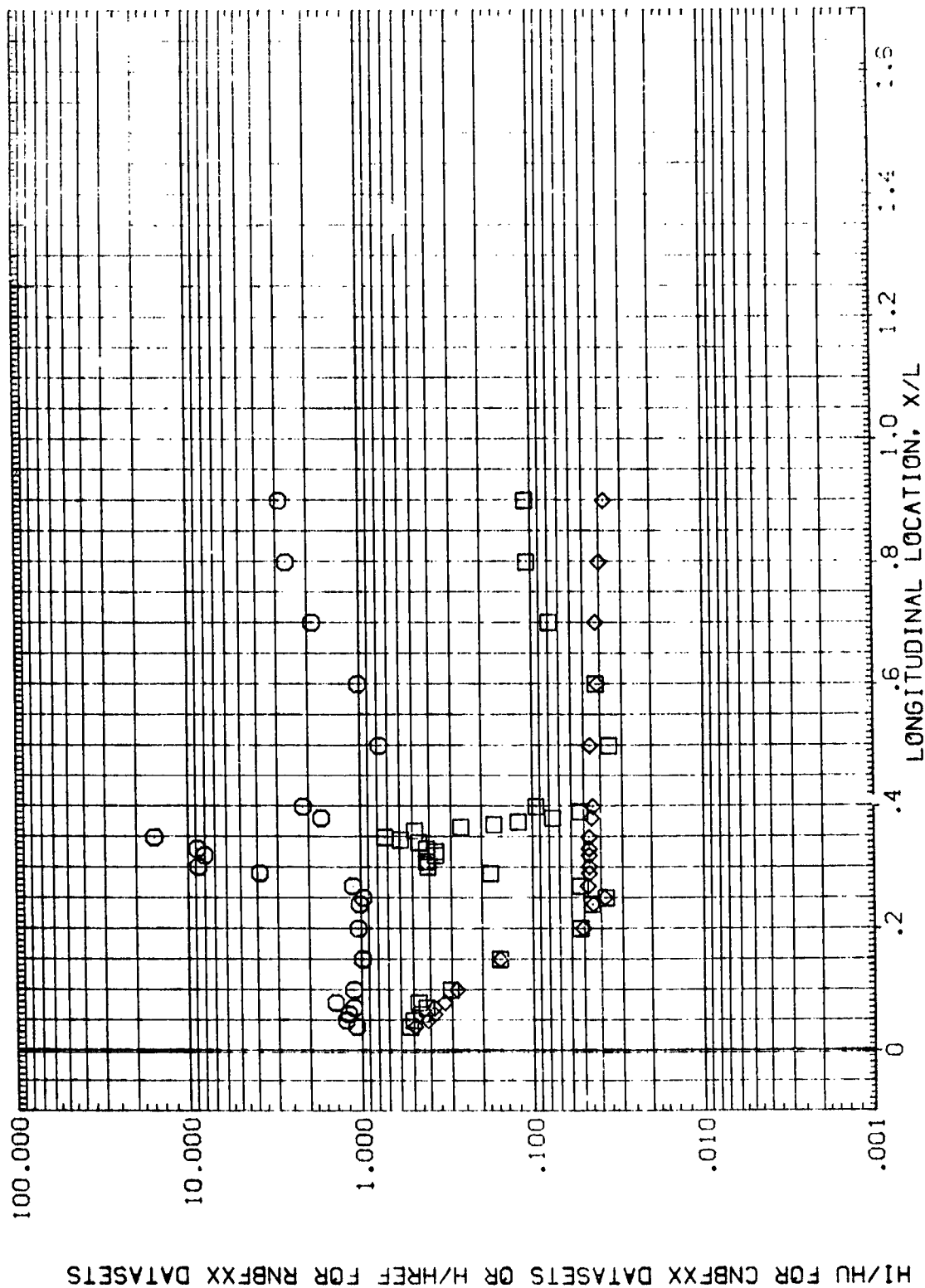


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF03)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      -5.000      .000      5.000

(CNBF18)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK      -5.000      .000      5.000

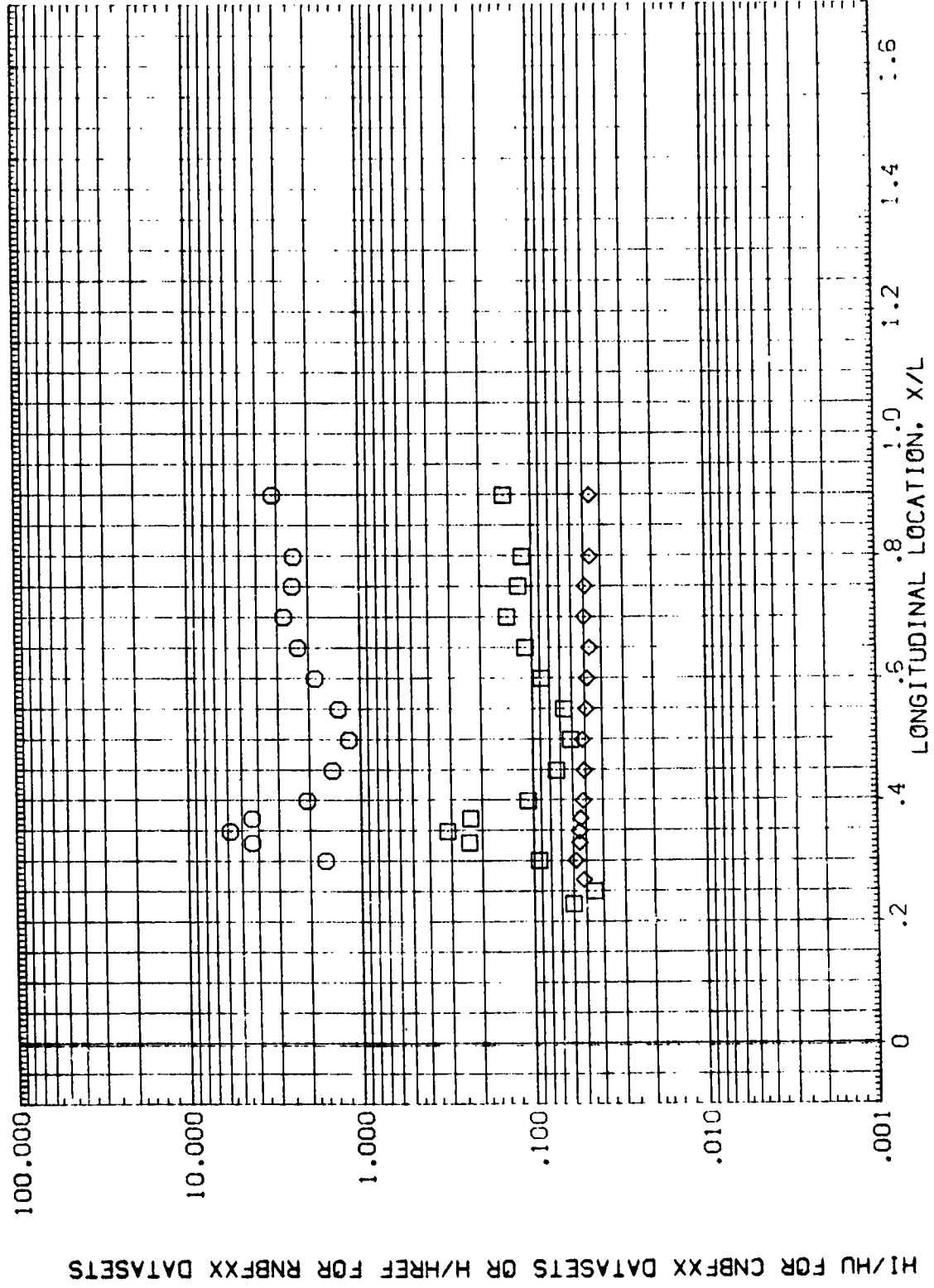


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 112.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF03)    DATA NOT AVAILABLE  
 (CNBF03)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (CNBF18)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 -5.000    .000    5.000  
 -5.000    .000    5.000  
 -5.000    .000    5.000

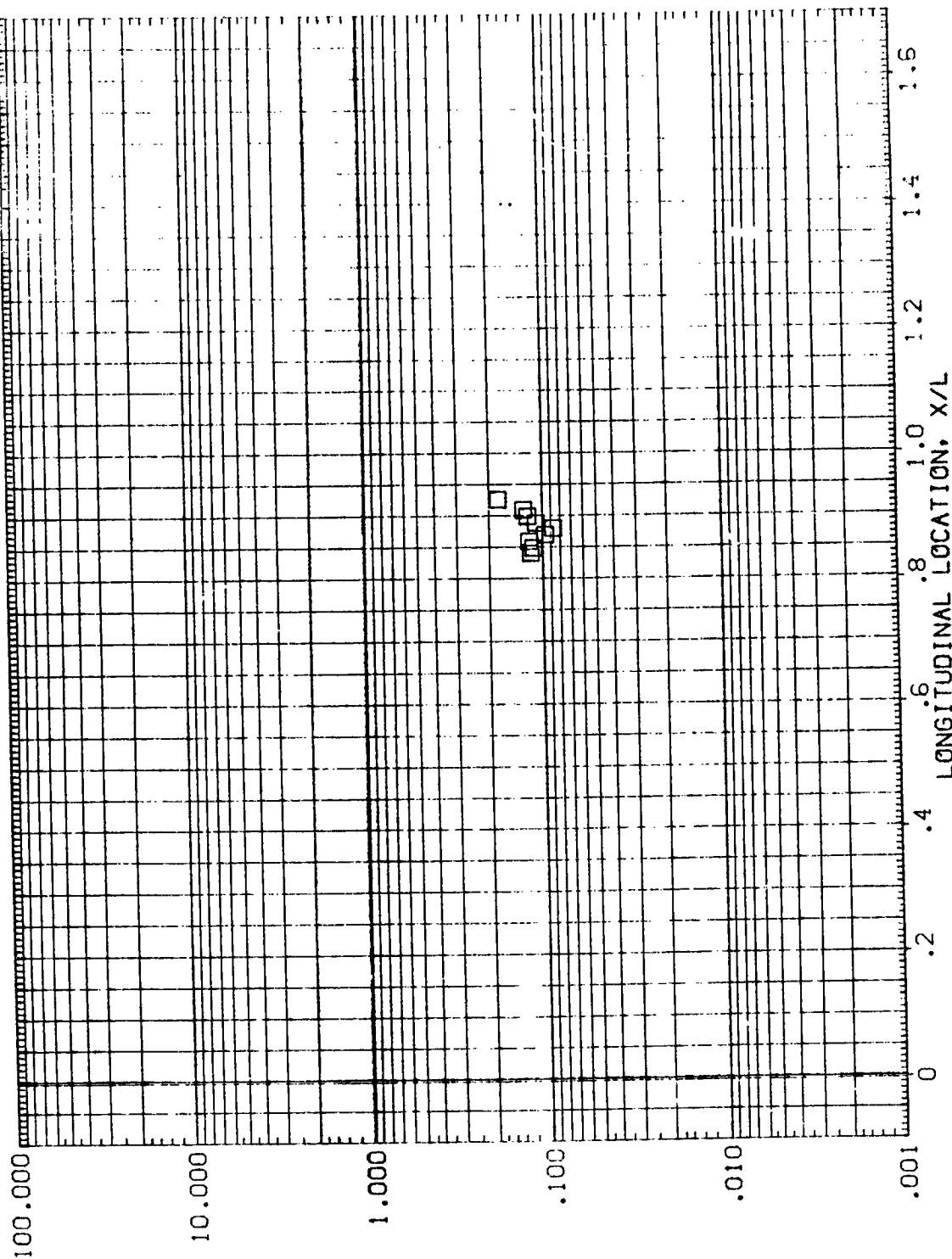


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 125.400

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF03)    DATA NOT AVAILABLE  
 (RNBFO3)    ARC3-5-211(JH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI8)    DATA NOT AVAILABLE

ALPHA    BETA    RV/L  
 -5.000    .000    5.000  
 -5.000    .000    5.000  
 -5.000    .000    5.000

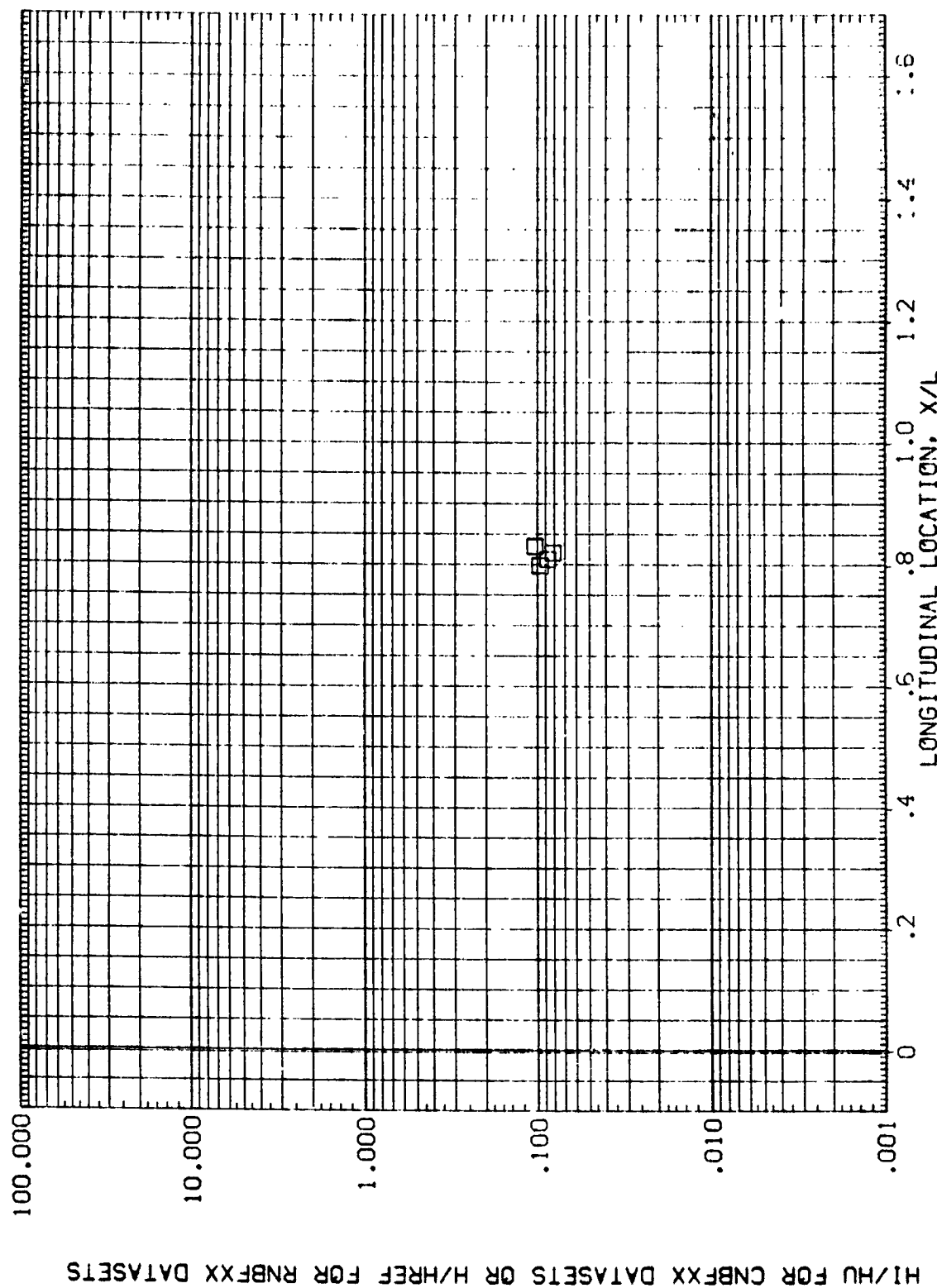


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF03)      1H-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF03)      ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000

(RNBF18)      ARC3.5-211(1H48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

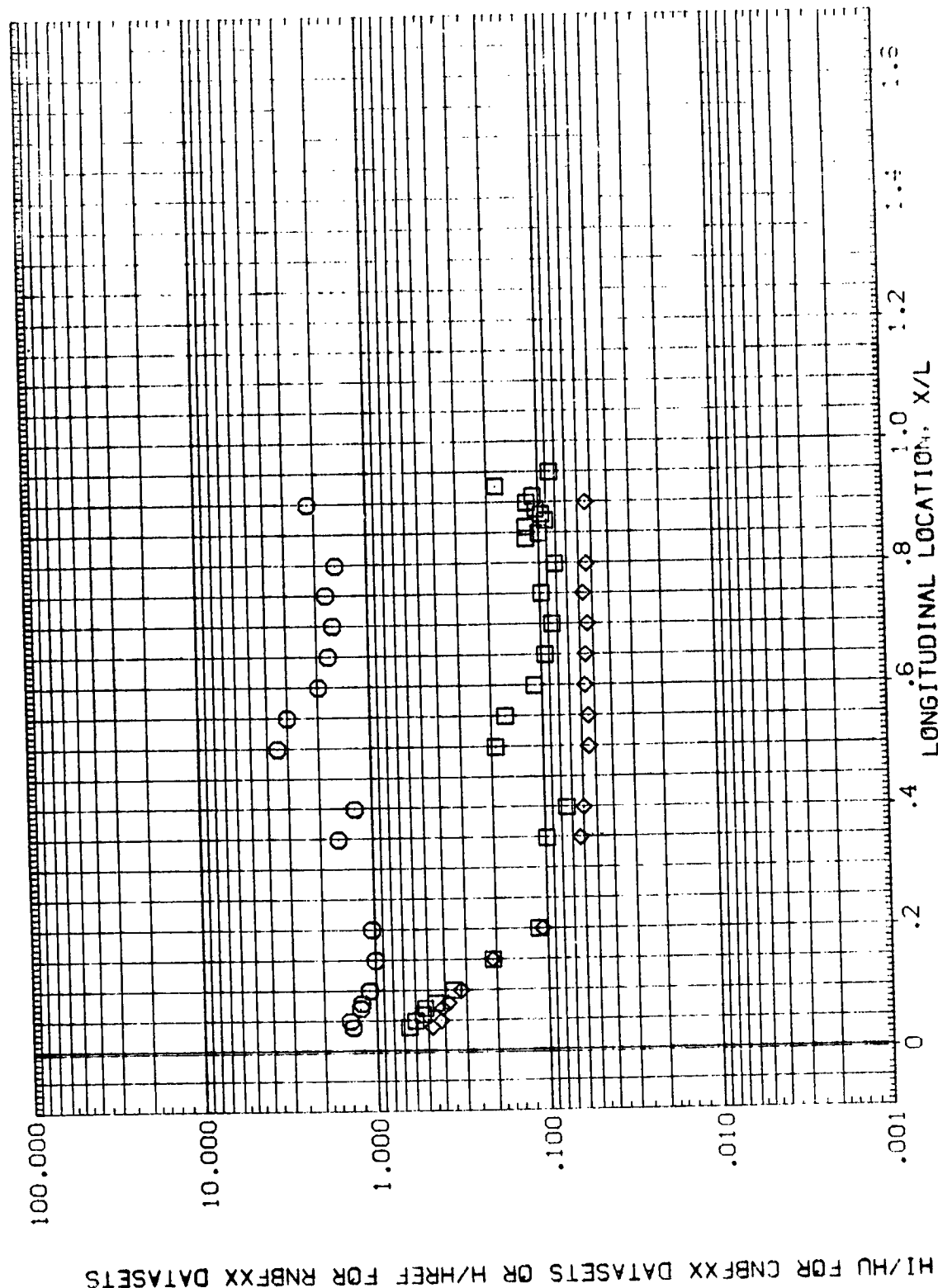


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 135.000      PAGE 100



DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF03)      DATA NOT AVAILABLE  
 (RNB03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNB18)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

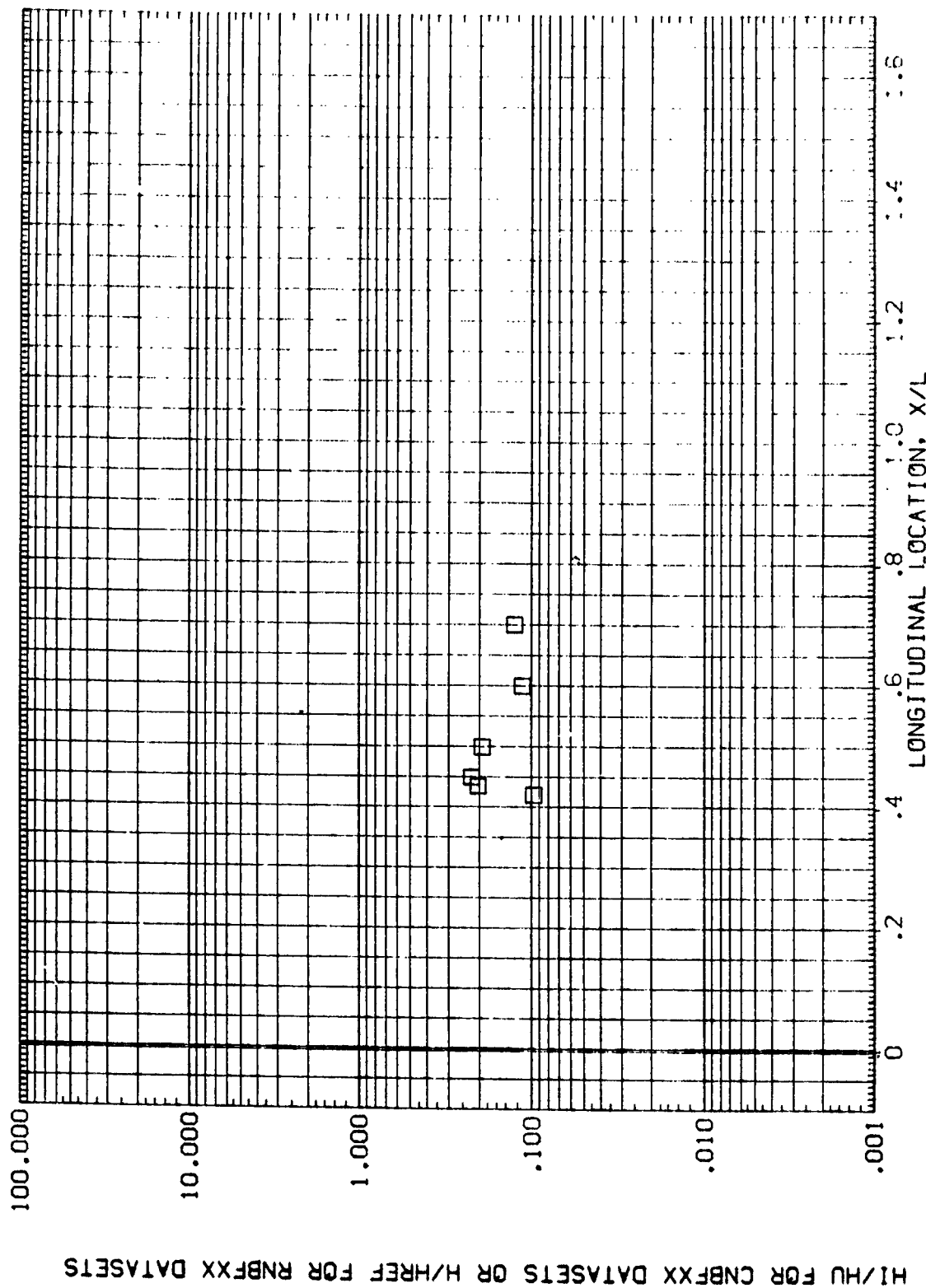


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 142.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF03)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE .DAT  
 (RNBFC03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(Q+S) EXT TANK  
 (RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

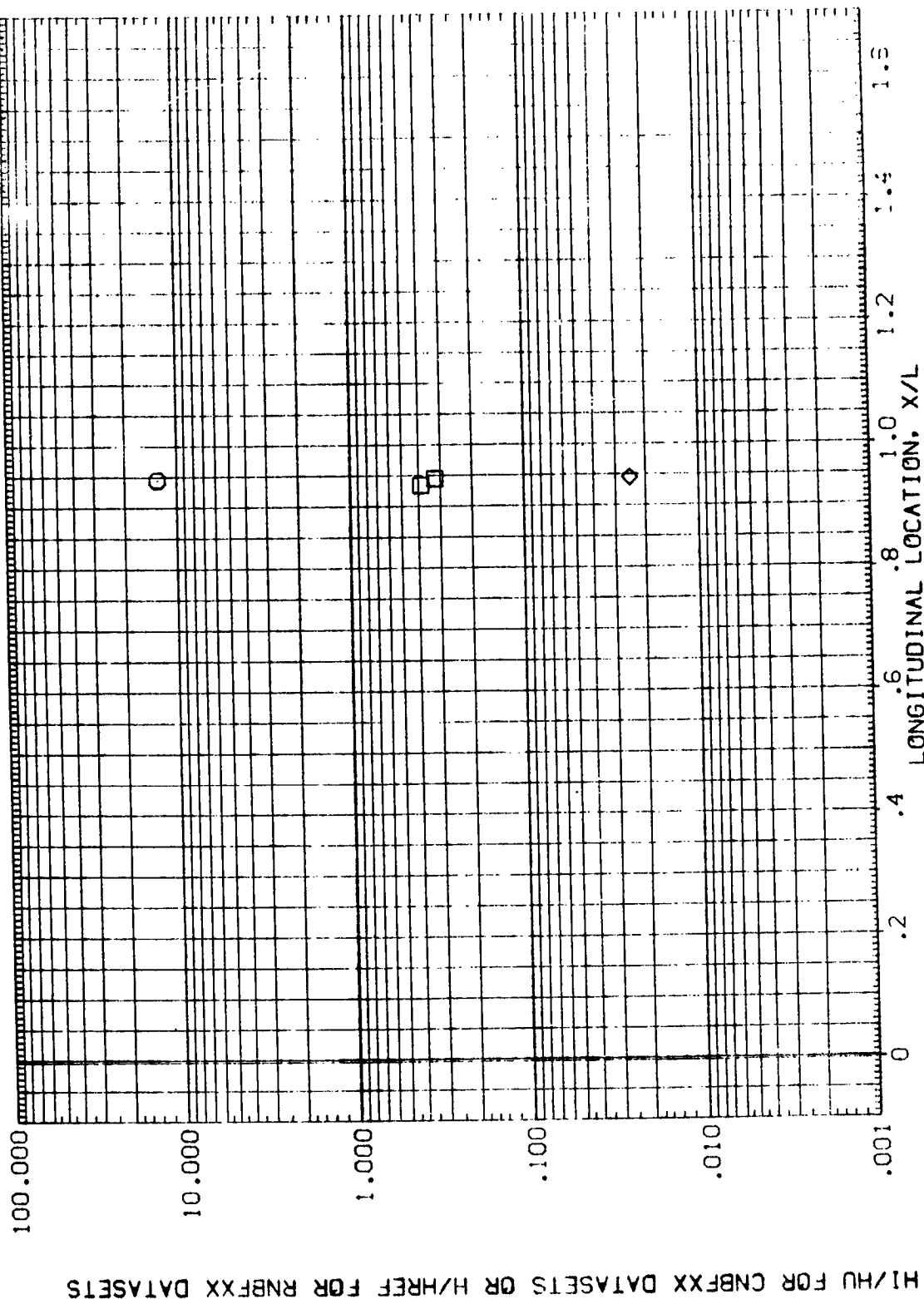


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PH-I = 154.980

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF03)      DATA NOT AVAILABLE  
 (CNBF03)      ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (CNBF18)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

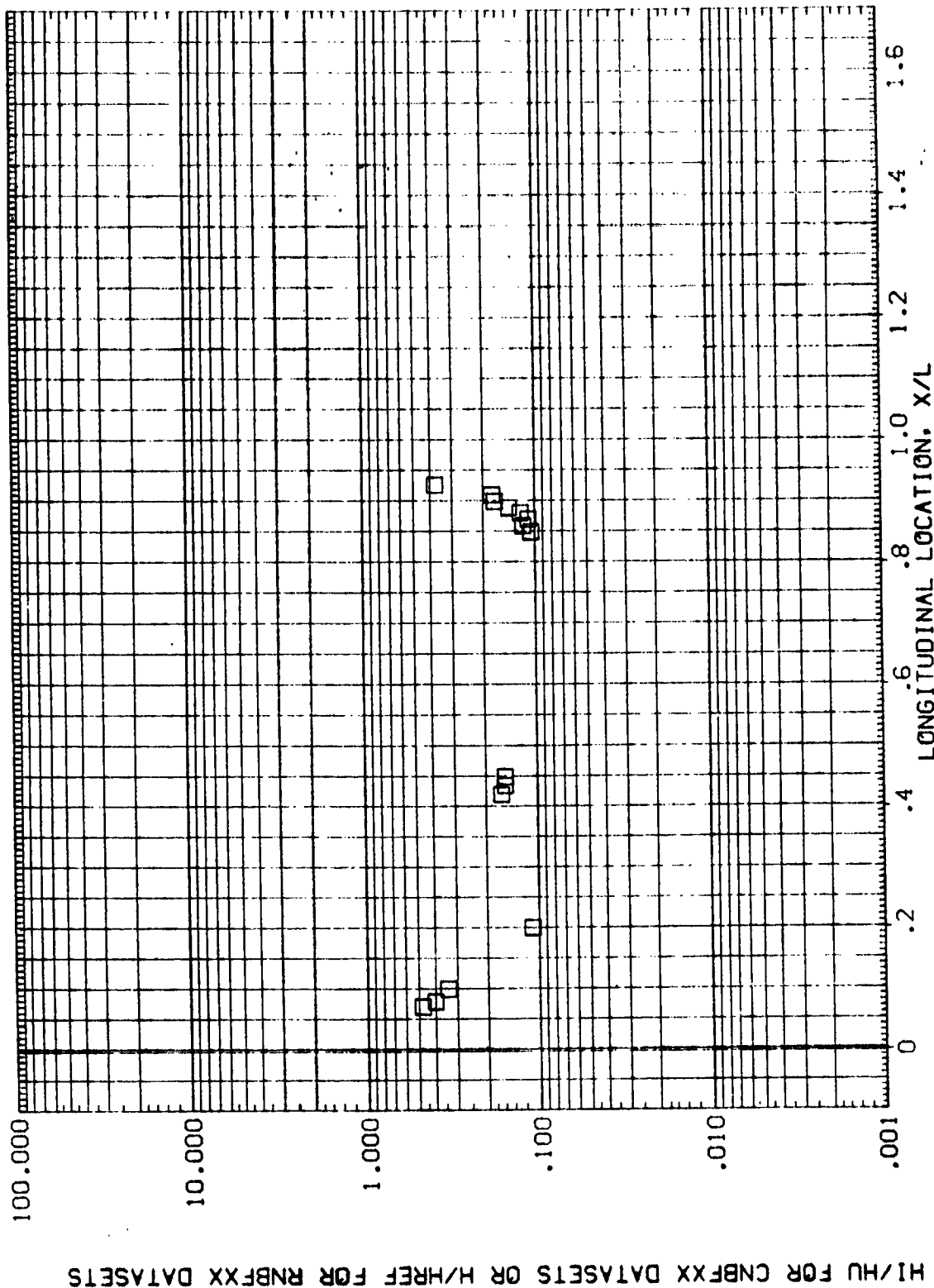


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.200      HAW/HT = .900      PHI = 157.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF03)    DATA NOT AVAILABLE  
 (RNBFX03)    ARC3.5-211 (H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFX18)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 -5.000    .000    5.000  
 -5.000    .000    5.000  
 -5.000    .000    5.000

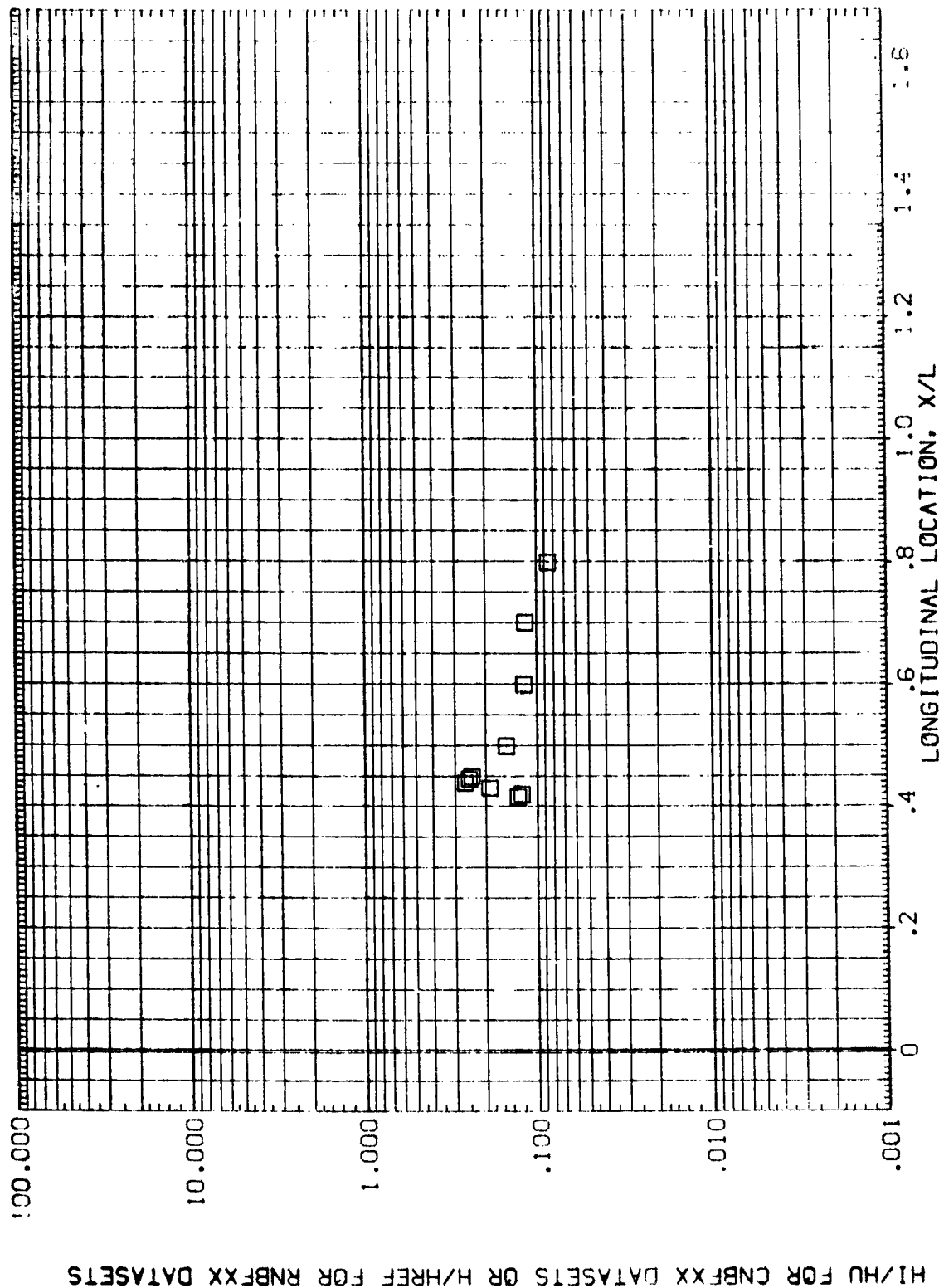


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF03)      DATA NOT AVAILABLE  
 (RNBF03)      ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBF18)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

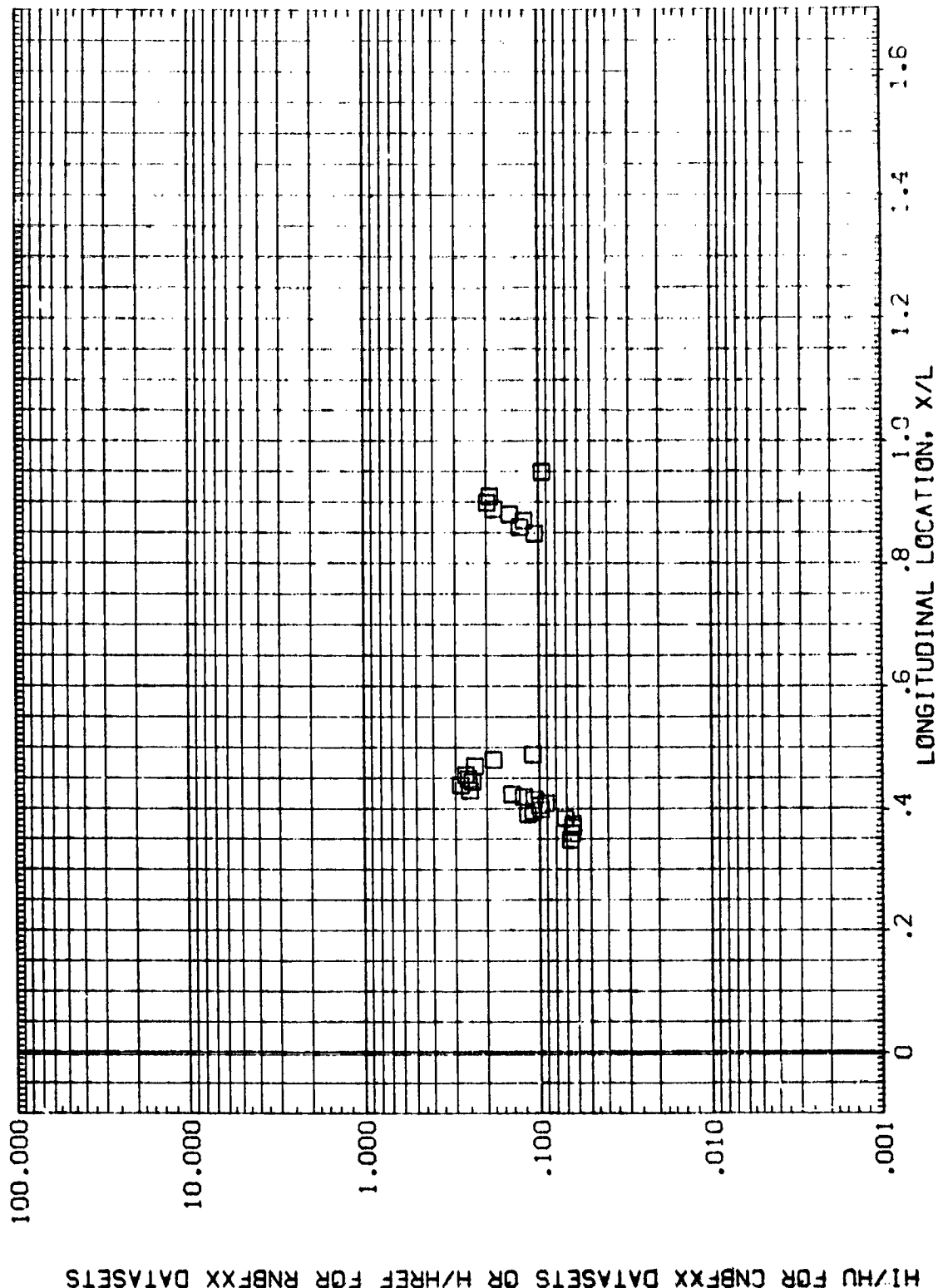


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 168.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN<sub>L</sub>  
 (CNBF03)      IH-48 (HI/HU LABELED W/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000  
 (RNBF03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0\*5) EXT TANK      -5.000      .000      5.000  
 (RNBF18)      ARC3.5-211(IH48)JET /NIPPLE/CLEAN      -5.000      .000      5.000

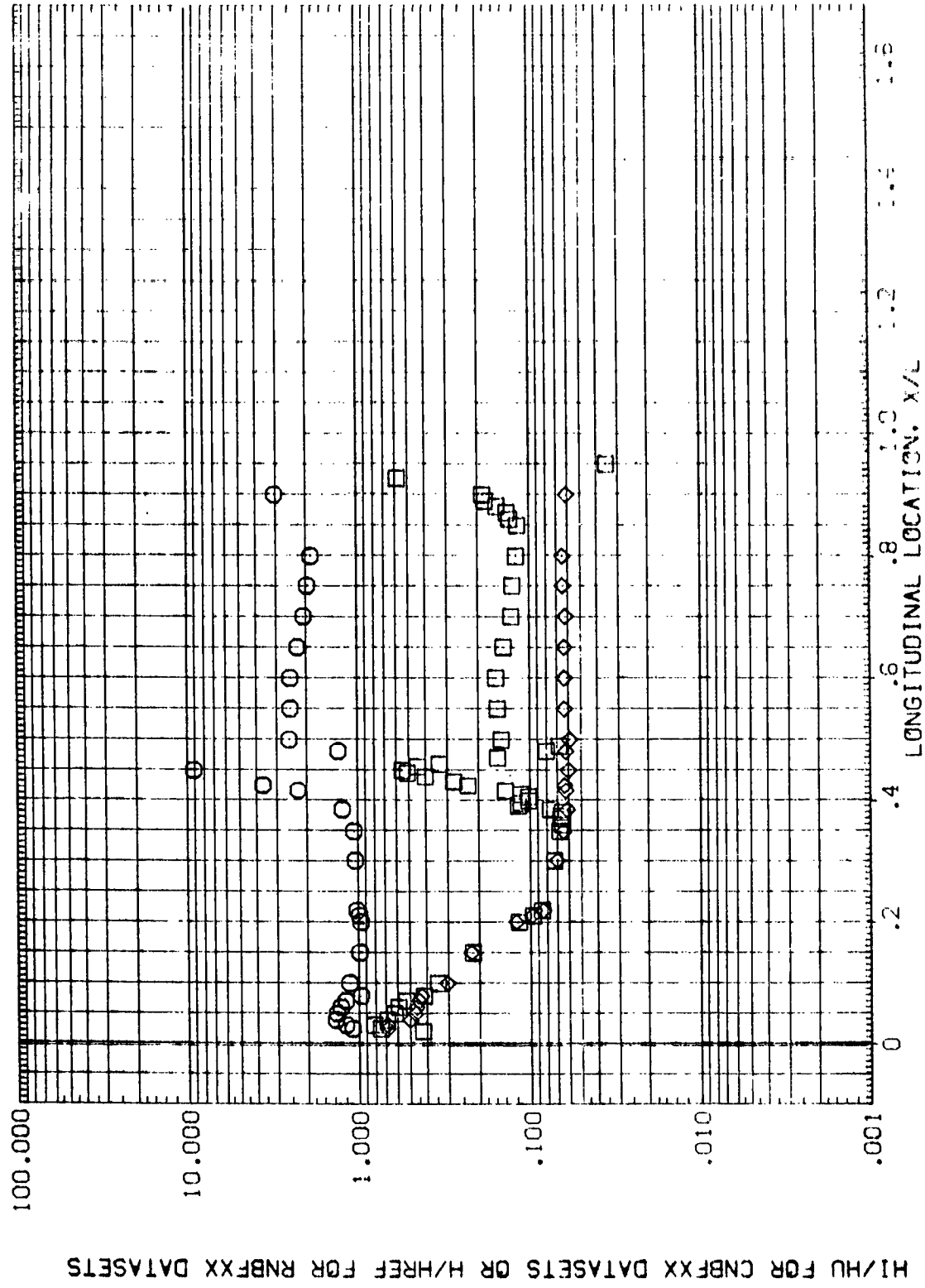


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 180.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    R<sup>2</sup>/L

(CNBF03)    IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT    -5.000    .000    5.000

(RNB03)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    -5.000    .000    5.000

(RNB16)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN    -5.000    .000    5.000

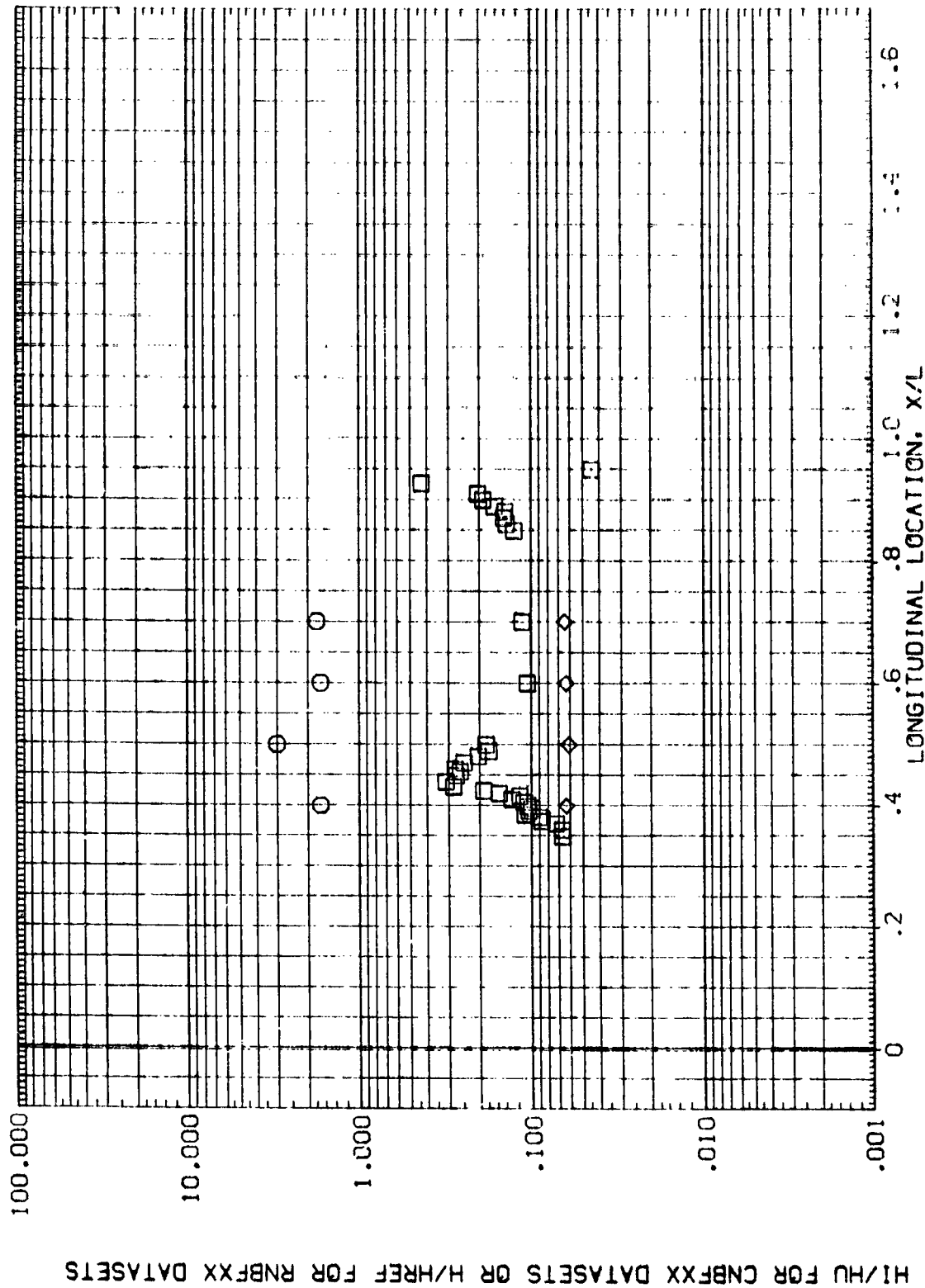


FIG. 04 EFFECT OF CRBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF03)      DATA NOT AVAILABLE  
 (CNBF03)      ARC3 5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (CNBF18)      DATA NOT AVAILABLE

ALPHA      BETA      RM/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

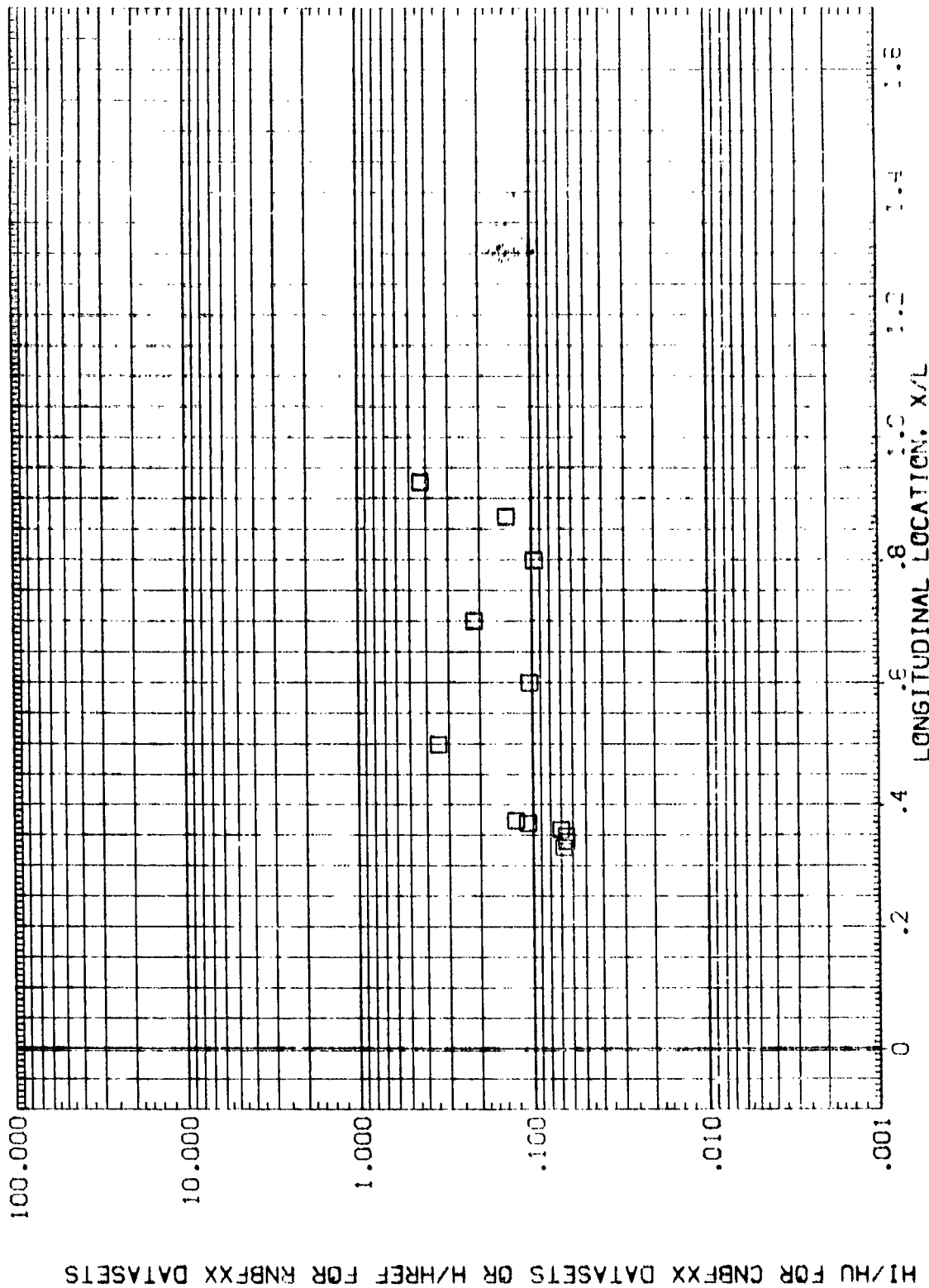


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 197.000



DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (CNBF03)    DATA NOT AVAILABLE  
 (CNBF03)    ARC3 5-211C (H48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK  
 (CNBF18)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 -5.000    .000    5.000  
 -5.000    .000    5.000  
 -5.000    .000    5.000

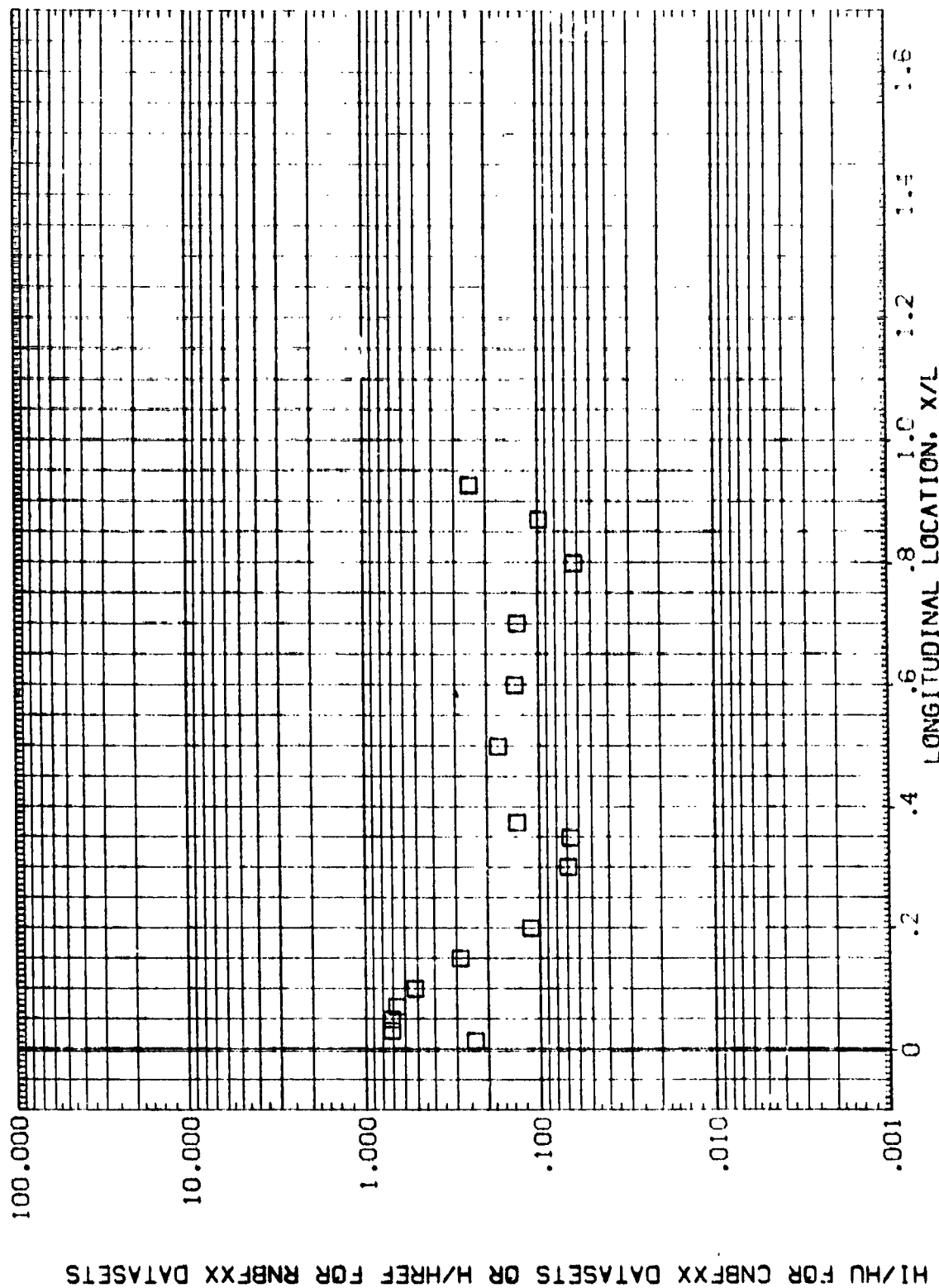


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RV/L

(CNBF03)      IH-48 (M/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000

(CNBF18)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

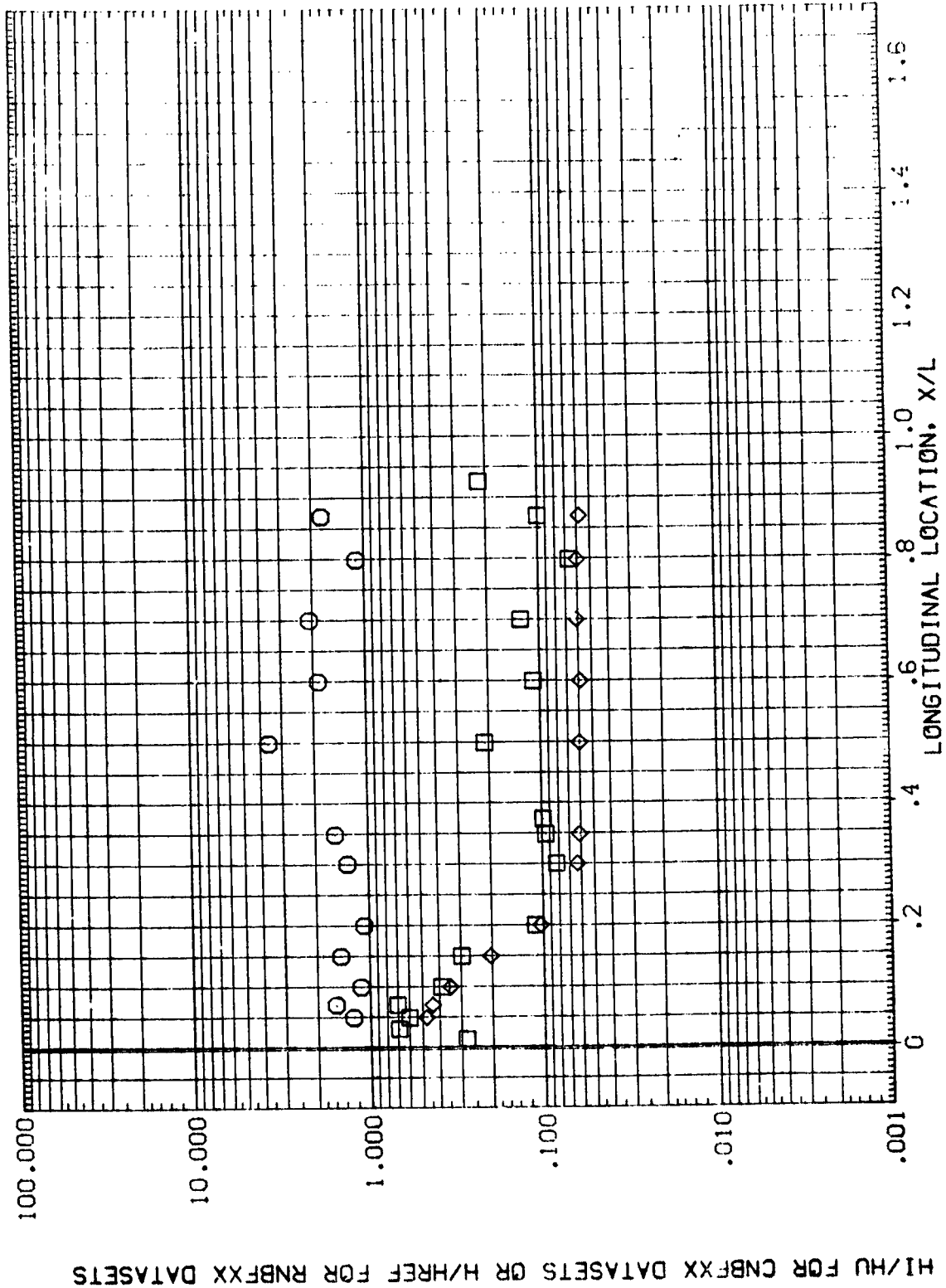


FIG. 04 EFFECT OF ORBITER AND SRB PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 217.700      PAGE 140

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFI4)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI7)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000

EXT TANK  
 EXT TANK

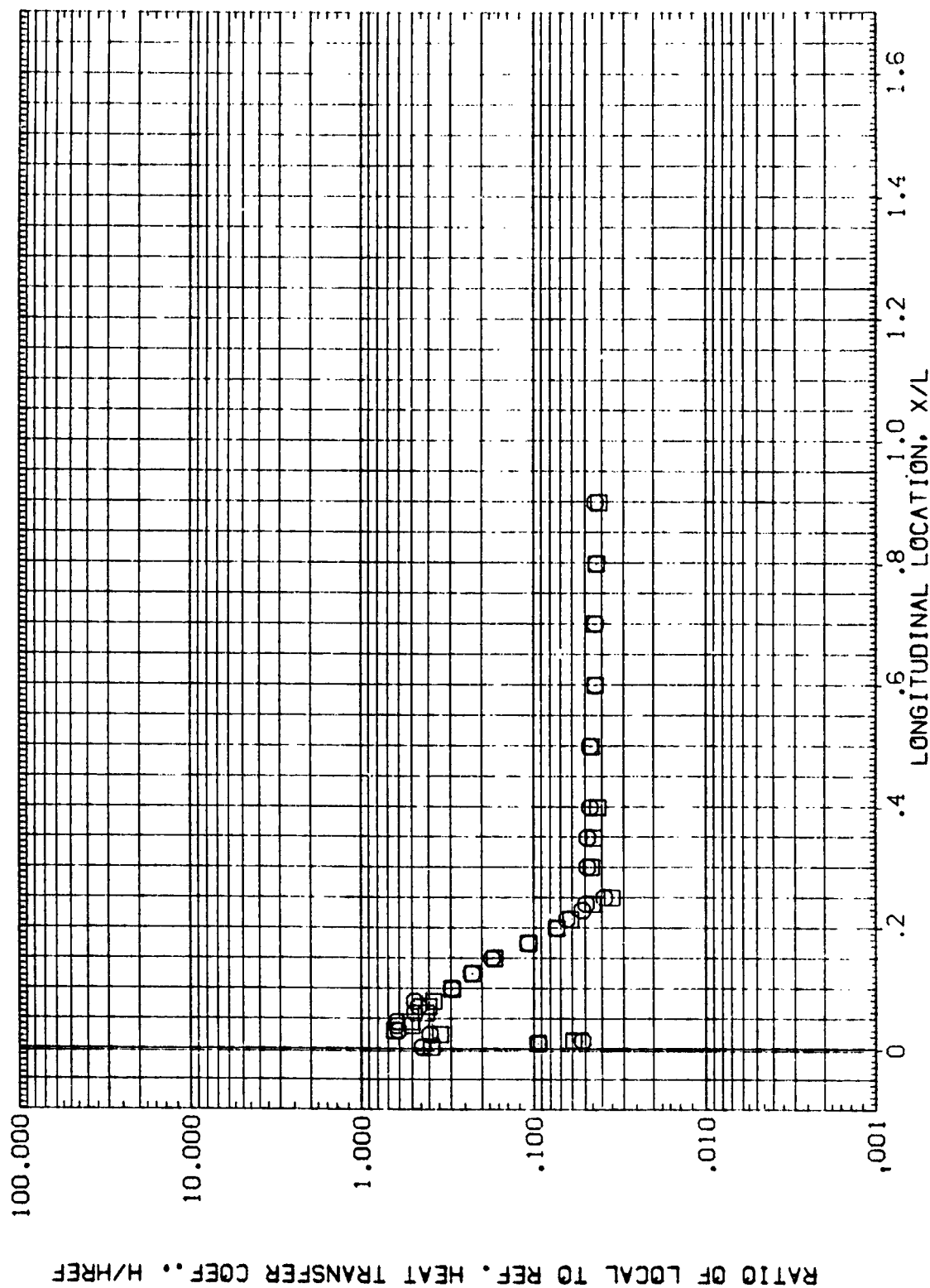


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFI4)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    .000    .000    5.000  
 (RNBFI7)    DATA NOT AVAILABLE    .000    .000    5.000

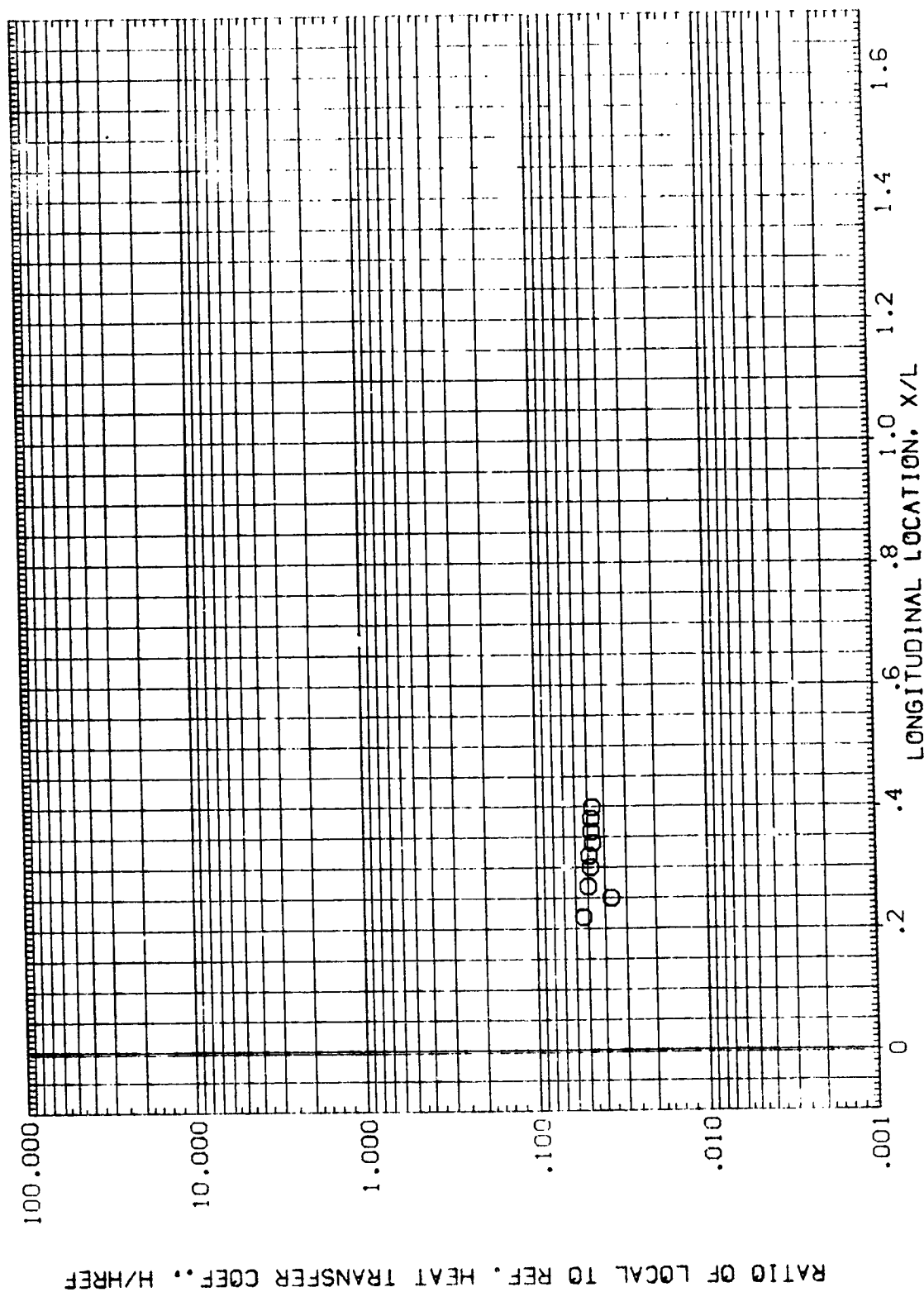


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNBFI4)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK      EXT TANK  
 ALPHA      BETA      RN/L  
 .000      .000      5.000  
 .000      .000      5.000

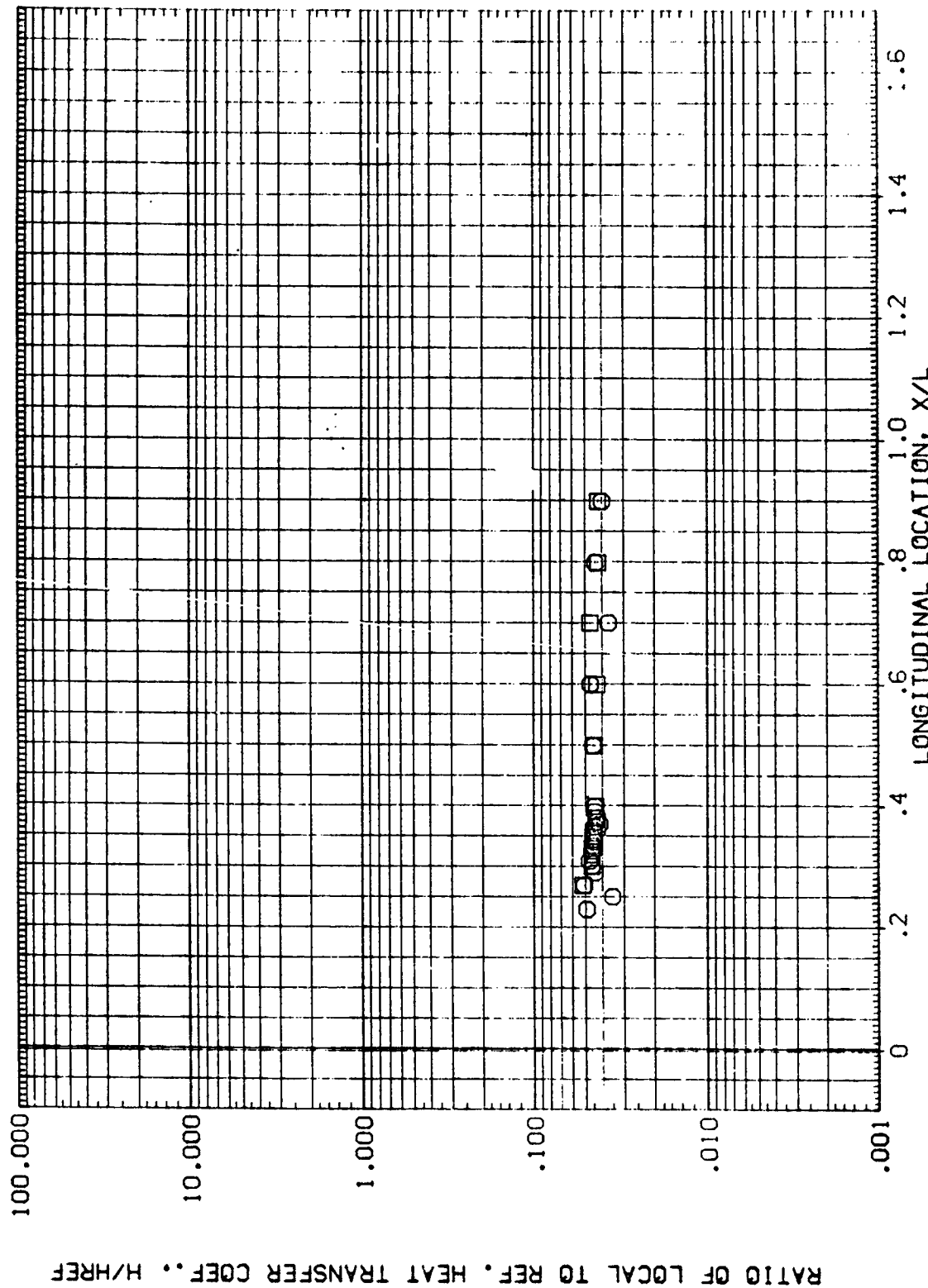


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    EXT TANK    ALPHA    BETA    RN/L  
 (RNBFI4)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP       .000    .000    5.000  
 (RNBFI7)    DATA NOT AVAILABLE       .000    .000    5.000

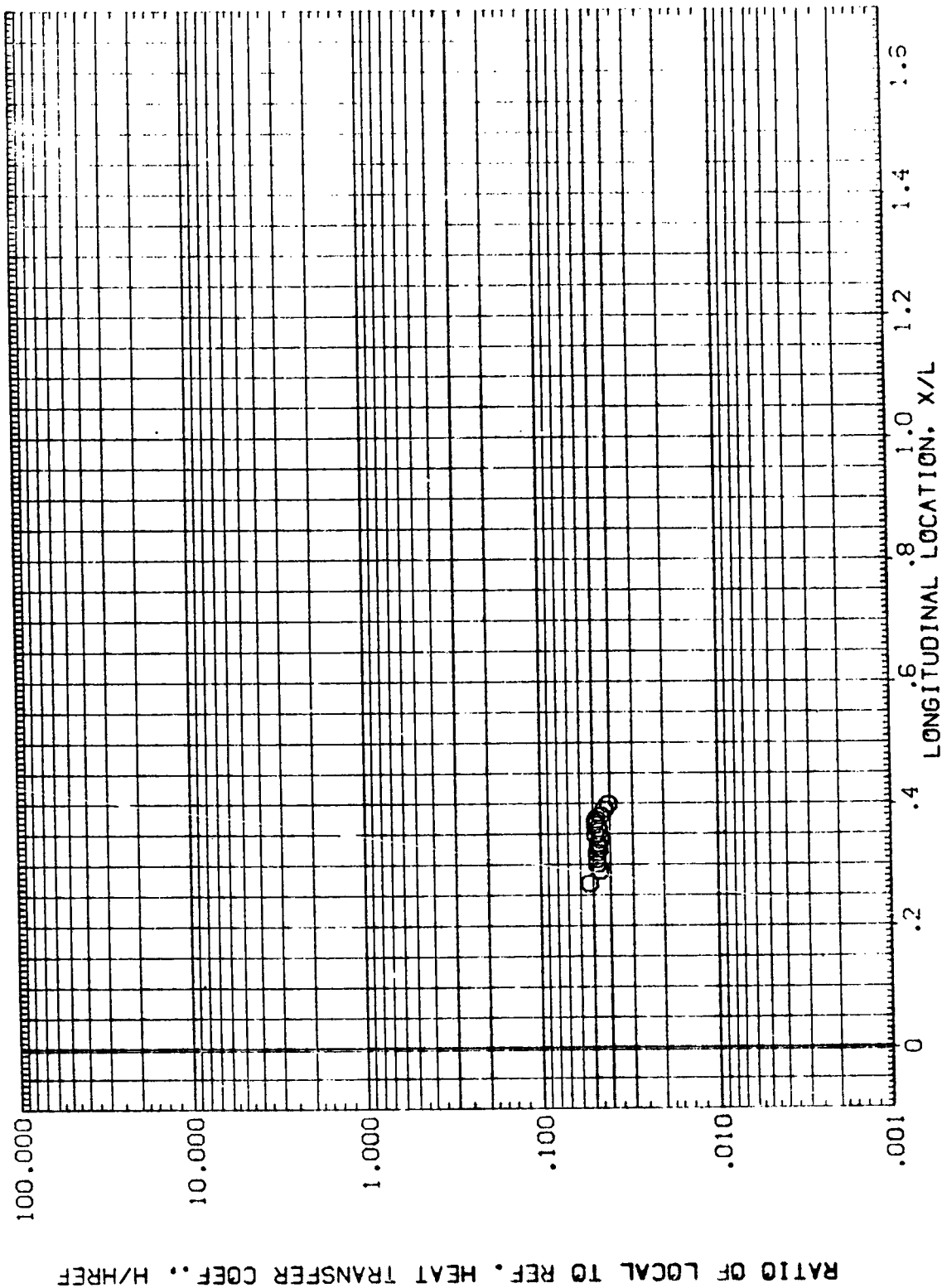


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 78.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI4)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      .000      .000      5.000  
 (RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

EXT TANK  
 EXT TANK

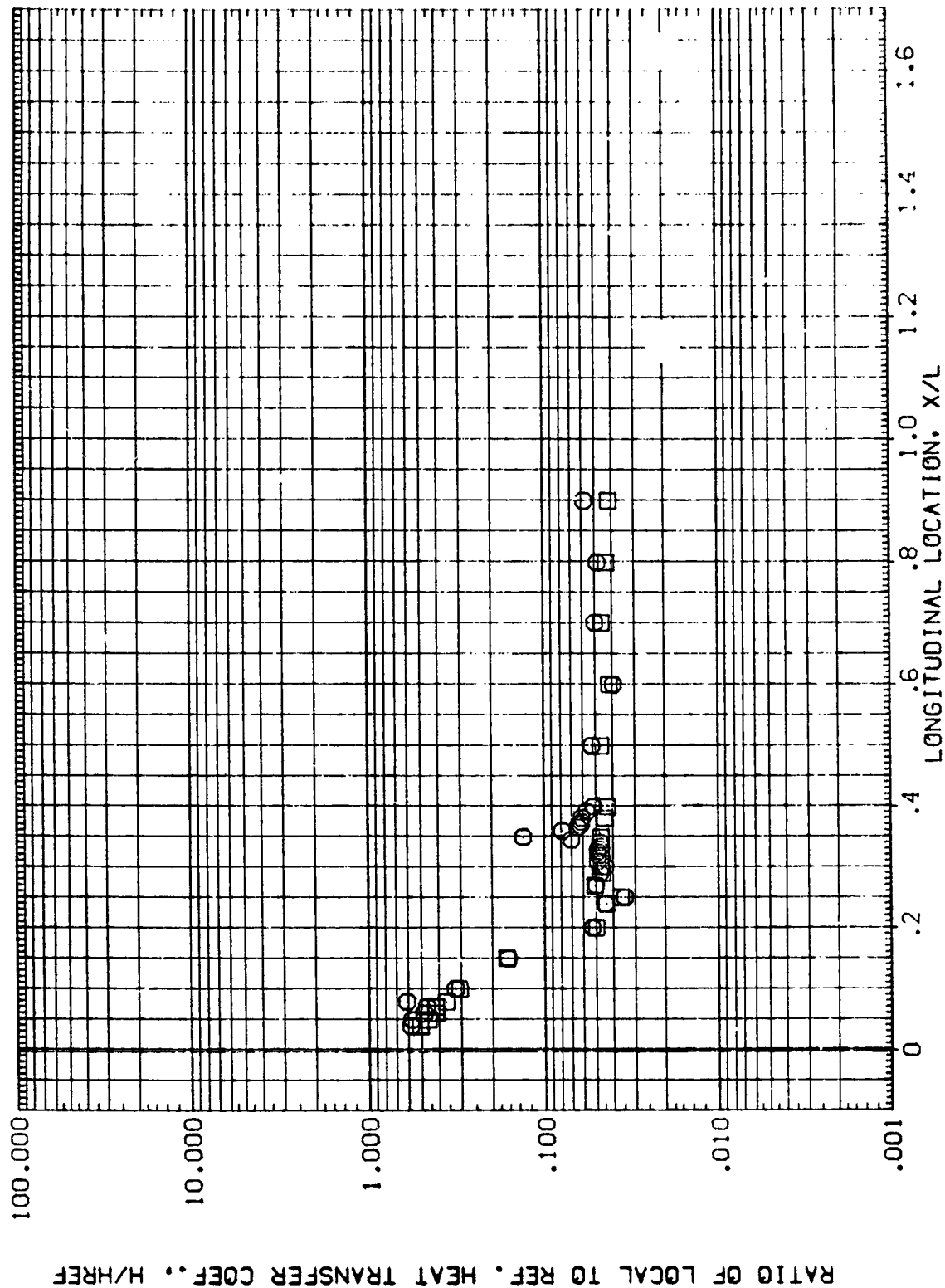


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .300      PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI4)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      .000      .000      5.000  
 (RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

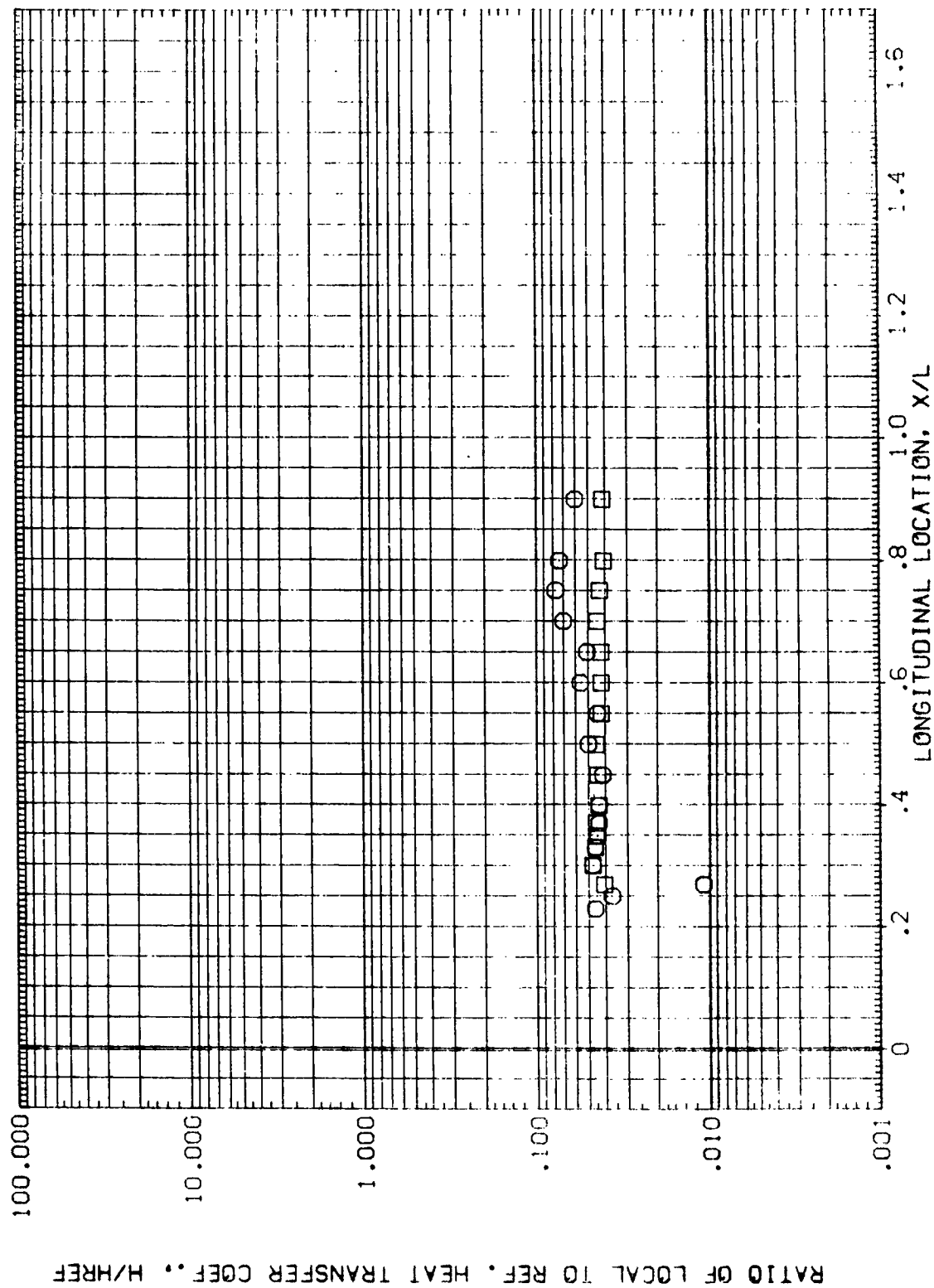


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 112.500



DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNB14)      ARC3.5-211C(IH48)OT /NIPPLE/P/TRIP  
 (RNB17)      DATA NOT AVAILABLE

EXT TANK      ALPHA      BETA      RN/L  
 .000      .000      .000      5.000  
 .000      .000      .000      5.000

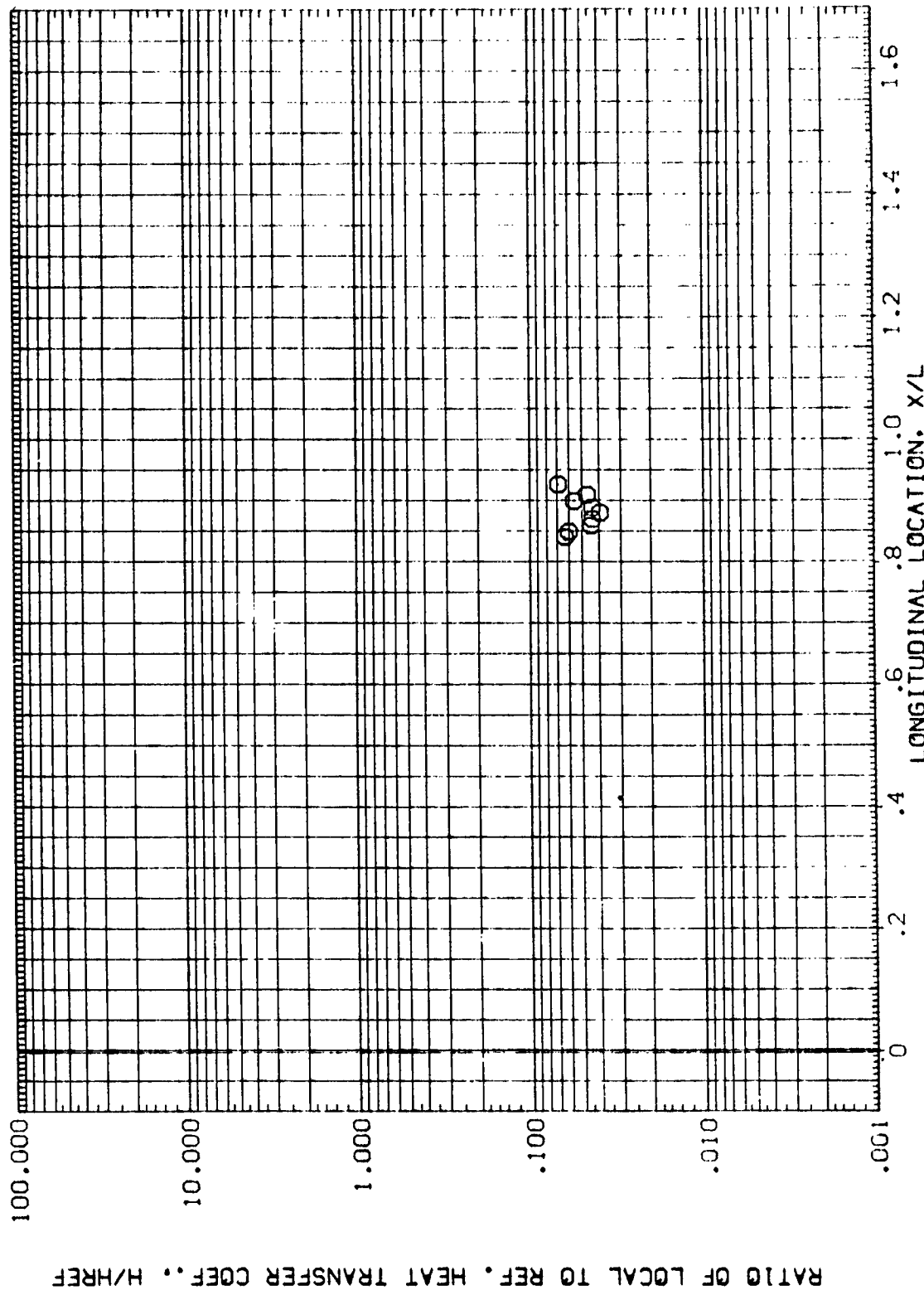


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI4) ARC3.5-211(CH48)OT /NIPPLE/P/TRIP  
 (RNBFI7) DATA NOT AVAILABLE

EXT TANK ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000

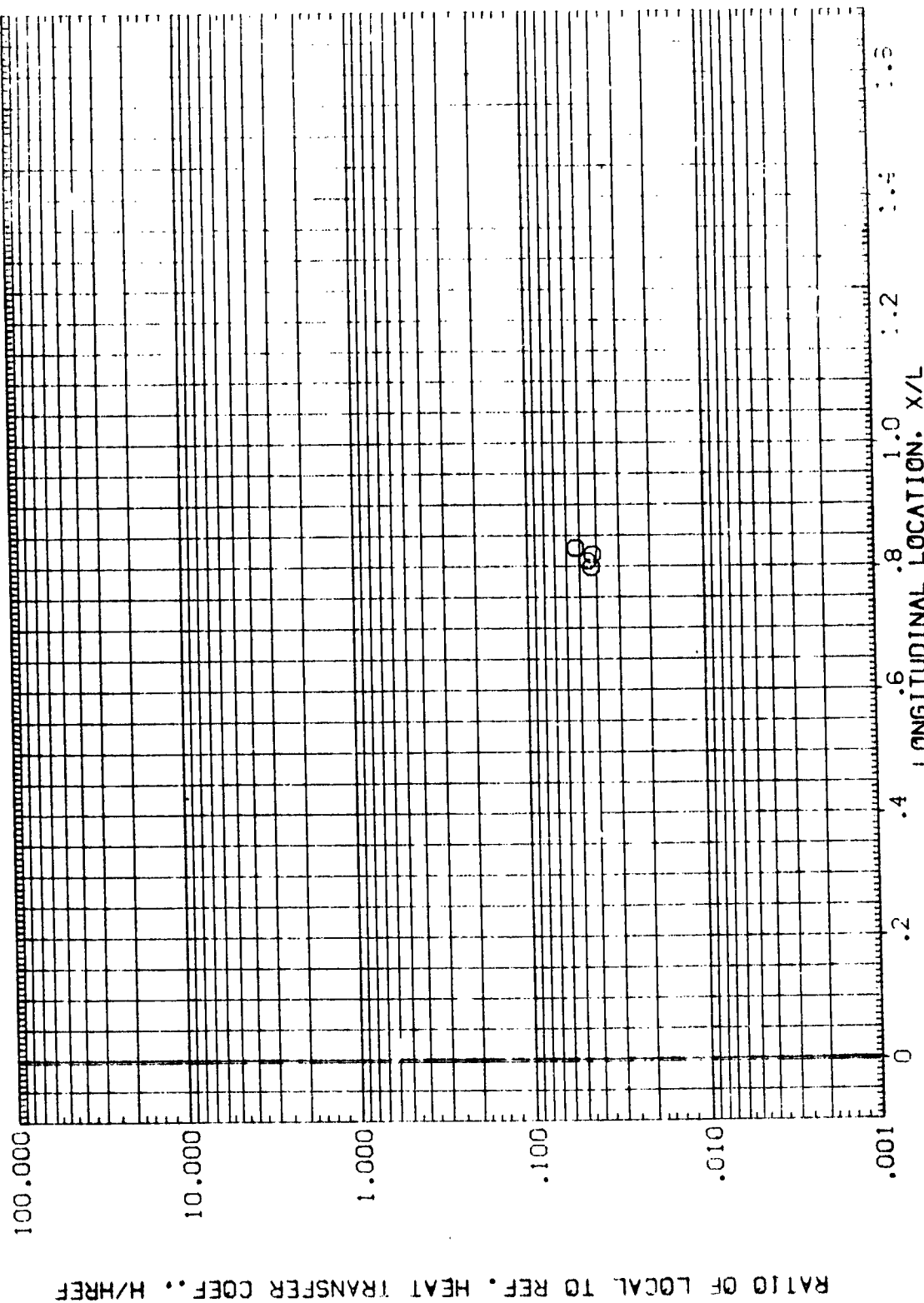


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/IT = .900 PHI = 129.300

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNB14)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNB17)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK    EXT TANK  
 ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000

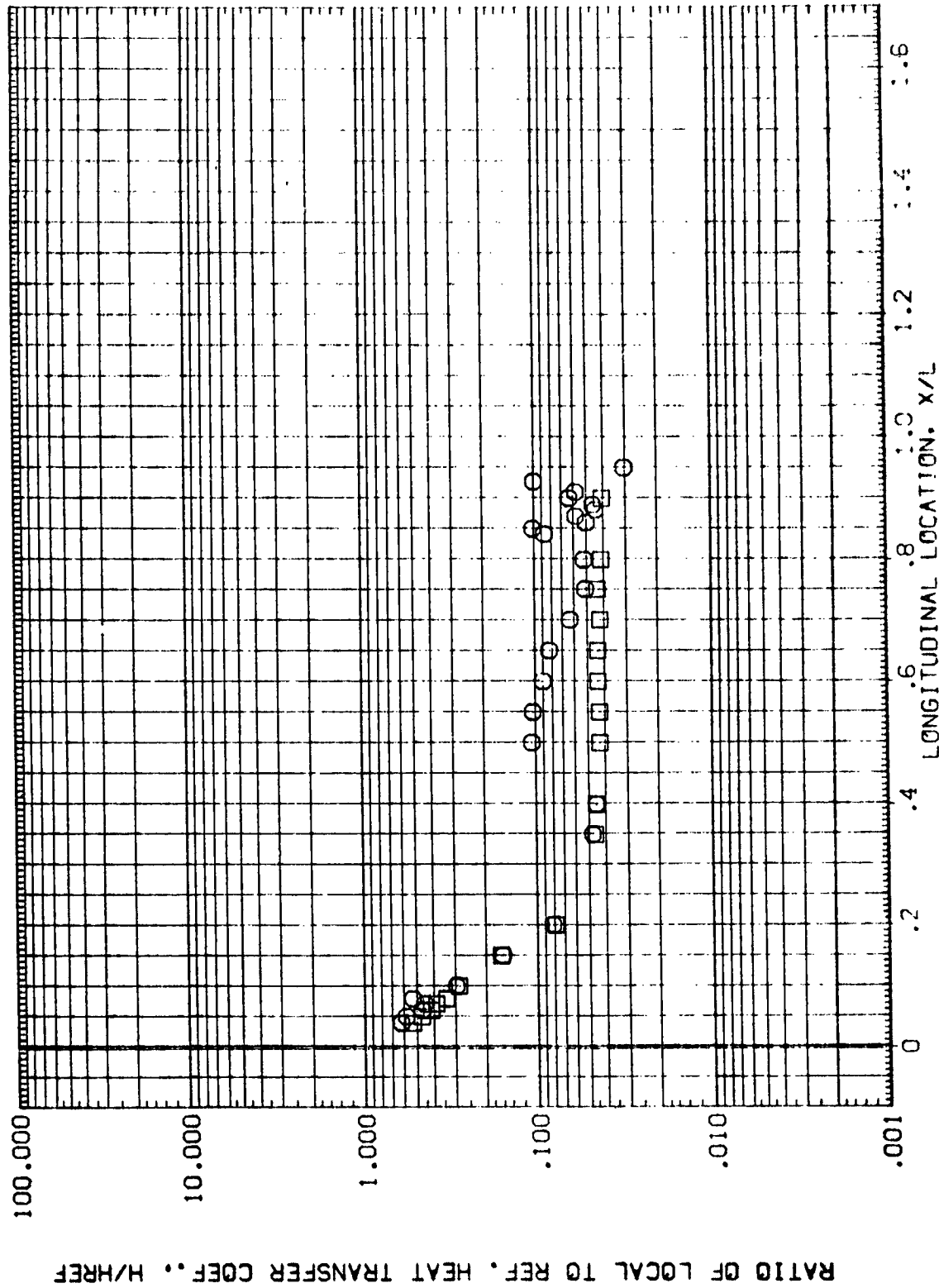


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 135.000

DATA SET SYMBOL: ARC3.5-211C(H48)OT /NIPPLE/P/TRIP  
 (RMBF14) DATA NOT AVAILABLE  
 (RMBF17)

ALPHA .000  
 BETA .000  
 RN/L 5.000

EXT TANK

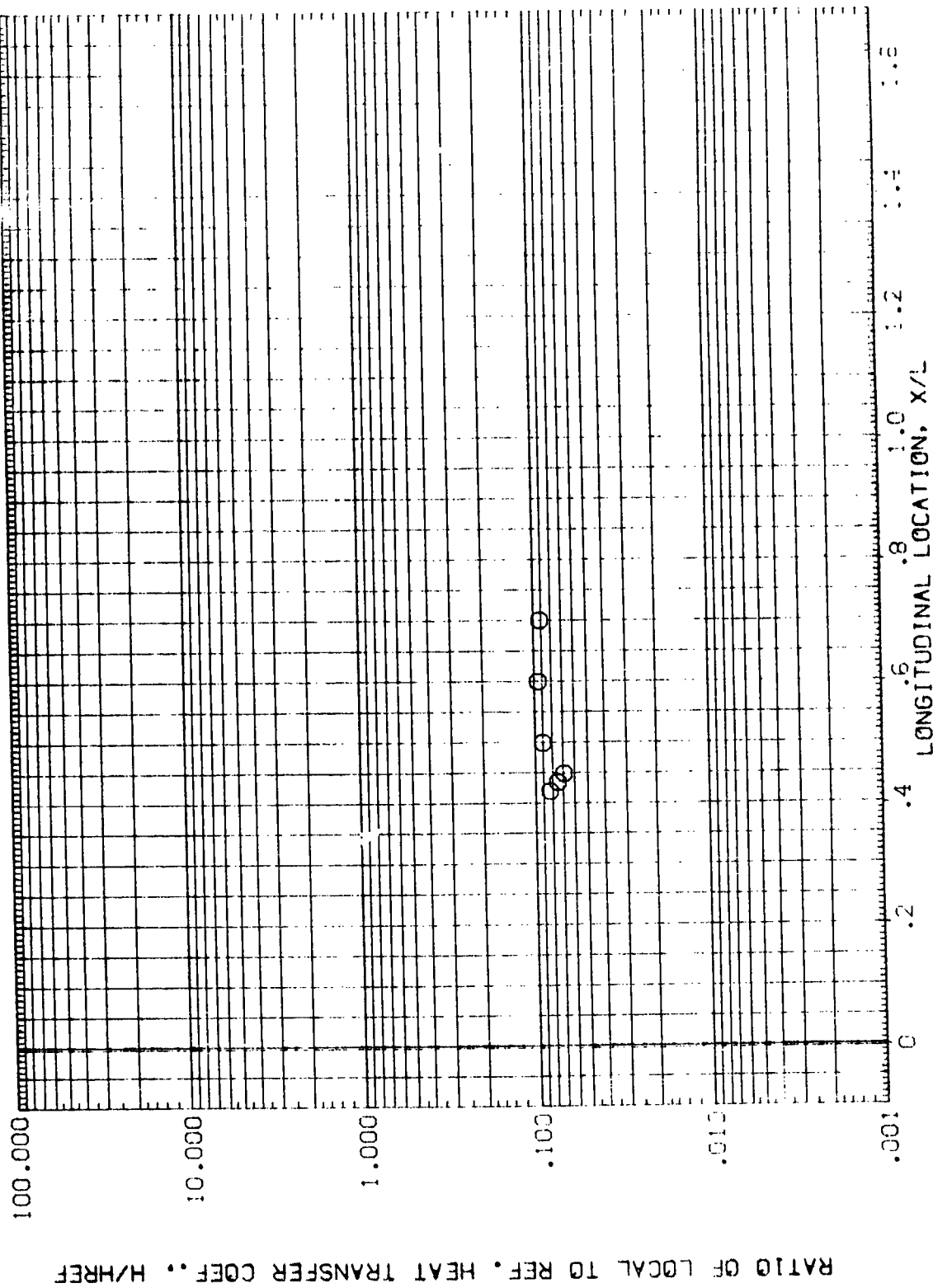


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RUBF14) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RUBF17) ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK  
 EXT TANK  
 ALPHA .000  
 BETA .000  
 RN/L 5.000  
 5.000

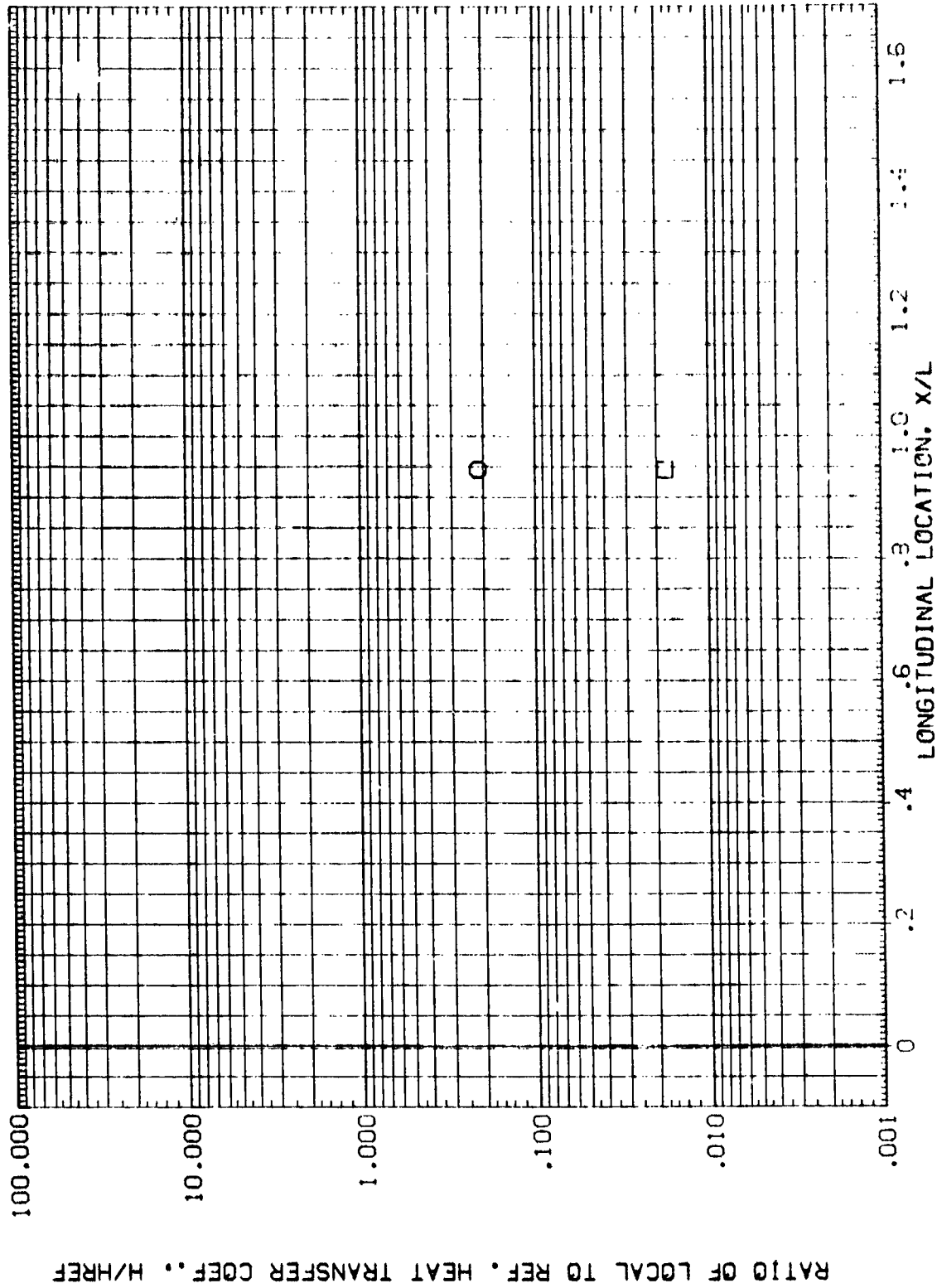


FIG. 15 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RMBF14) ARC3-S-211C(H48JOT /NIPPLE/P/TRIP  
 (RMBF17) DATA NOT AVAILABLE

EXT TANK ALPHA BETA RM/L  
 .000 .000 5.000  
 .000 .000 5.000

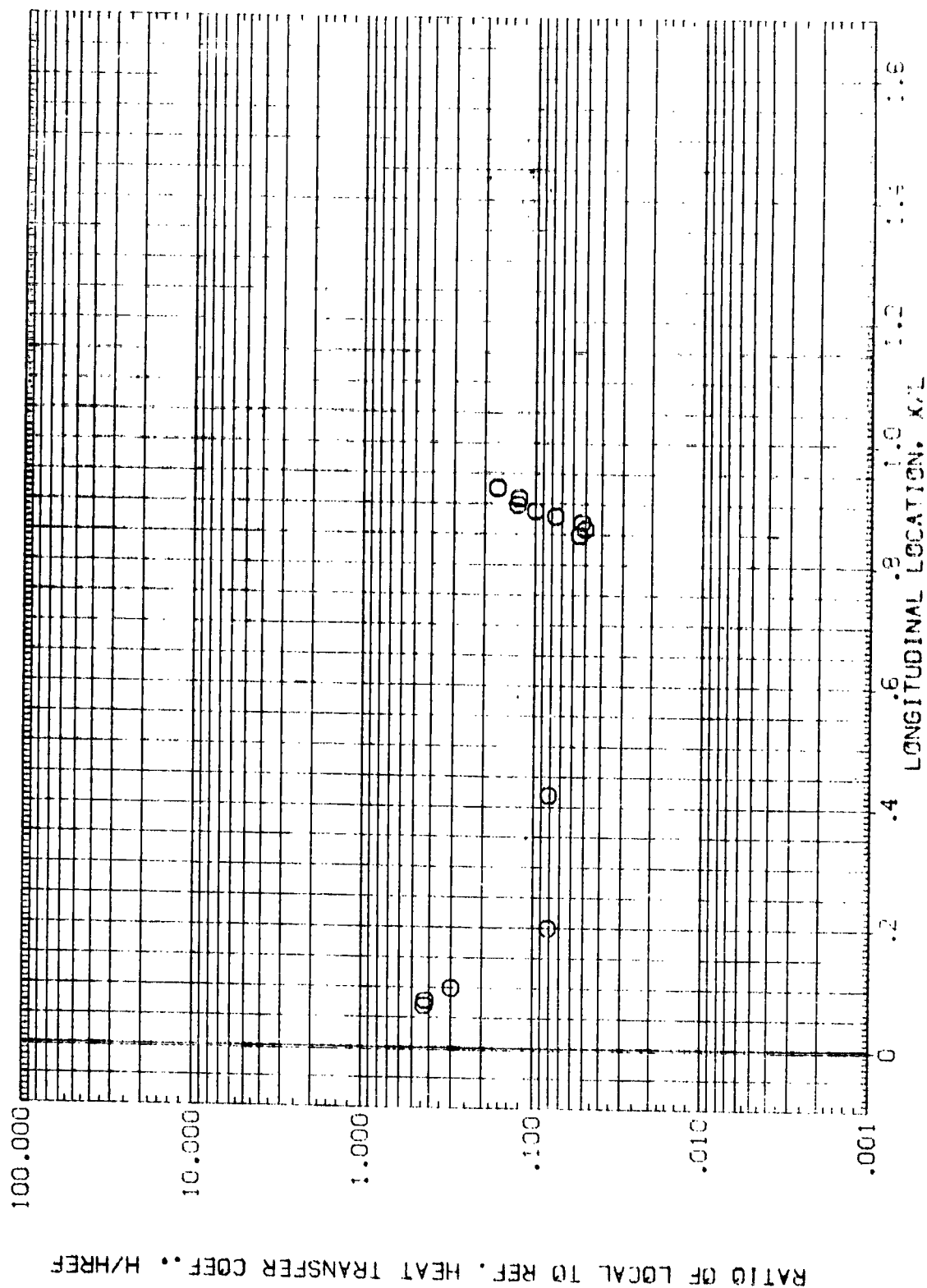


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HTE = .900 PHI = 157.500

DATA SET SYMBOL: CONFIGURATION DESCRIPTION  
 (RNBFI4) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI7) DATA NOT AVAILABLE

ALPHA BETA R<sub>N/L</sub>  
 .000 .000 5.000  
 .000 .000 5.000

EXT TANK

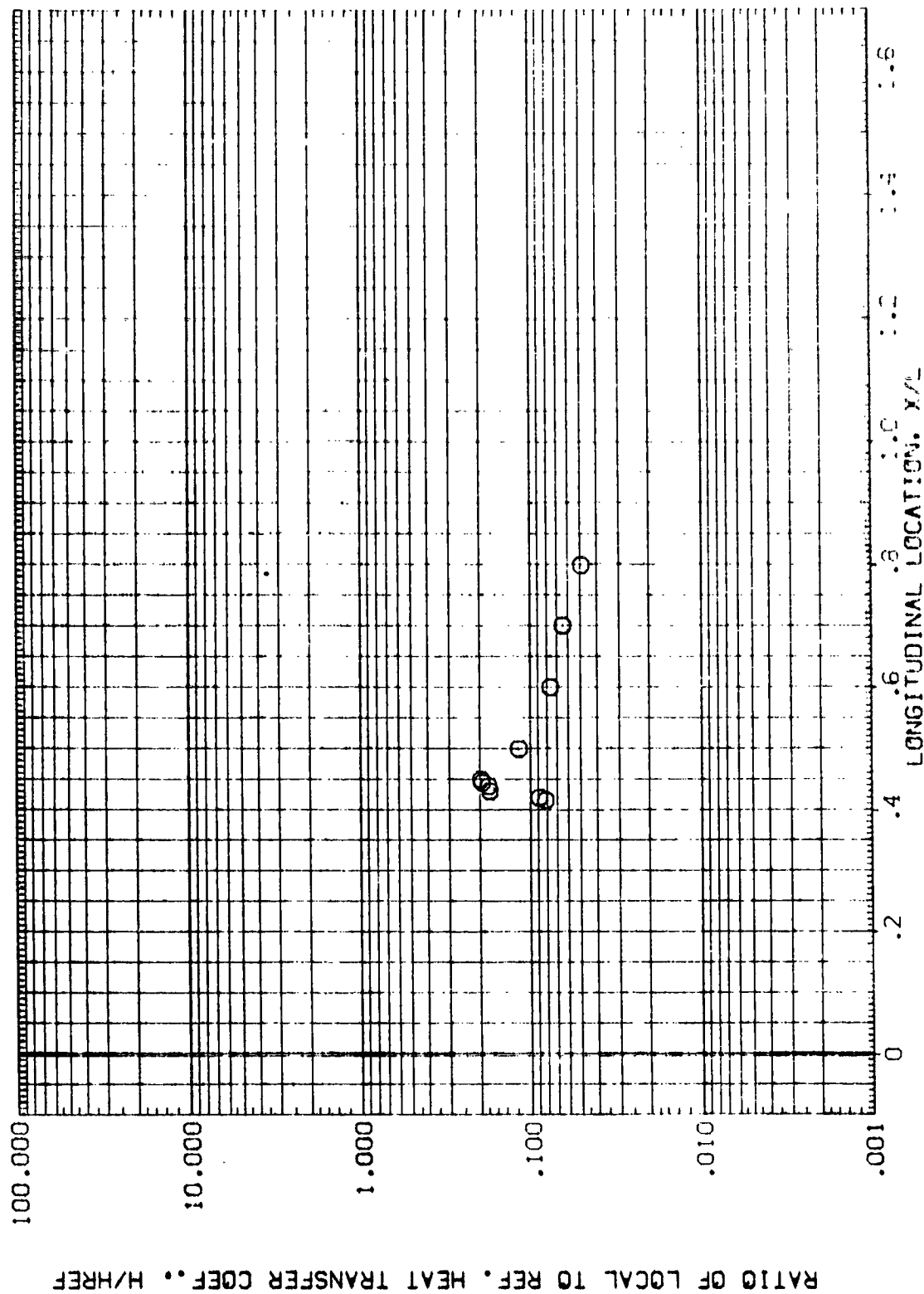


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.123

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RMBF14) ARC3.5-211(1H48)OT /NIPPLE/P/TRIP  
 (RMBF17) DATA NOT AVAILABLE

EXT TANK

ALPHA .000  
 .000

BETA .000  
 .000

RV/L

5.000  
 5.000

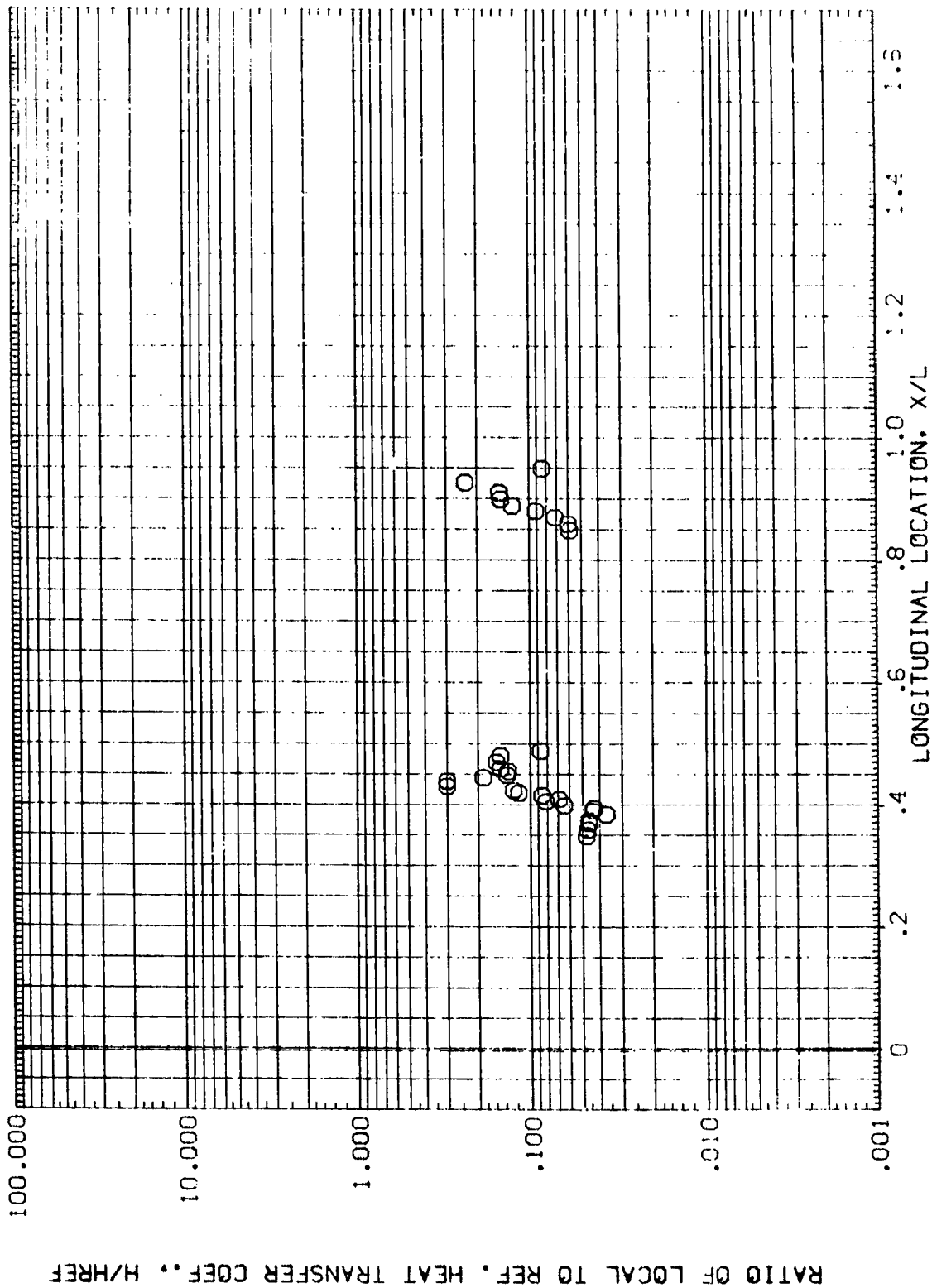


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 168.000



DATA SET SYMBOL  
(RNBFI4)  
(RNBFI7)

CONFIGURATION DESCRIPTION  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK  
EXT TANK

ALPHA .000 .000

BETA .000 .000

RN/L 5.000 5.000

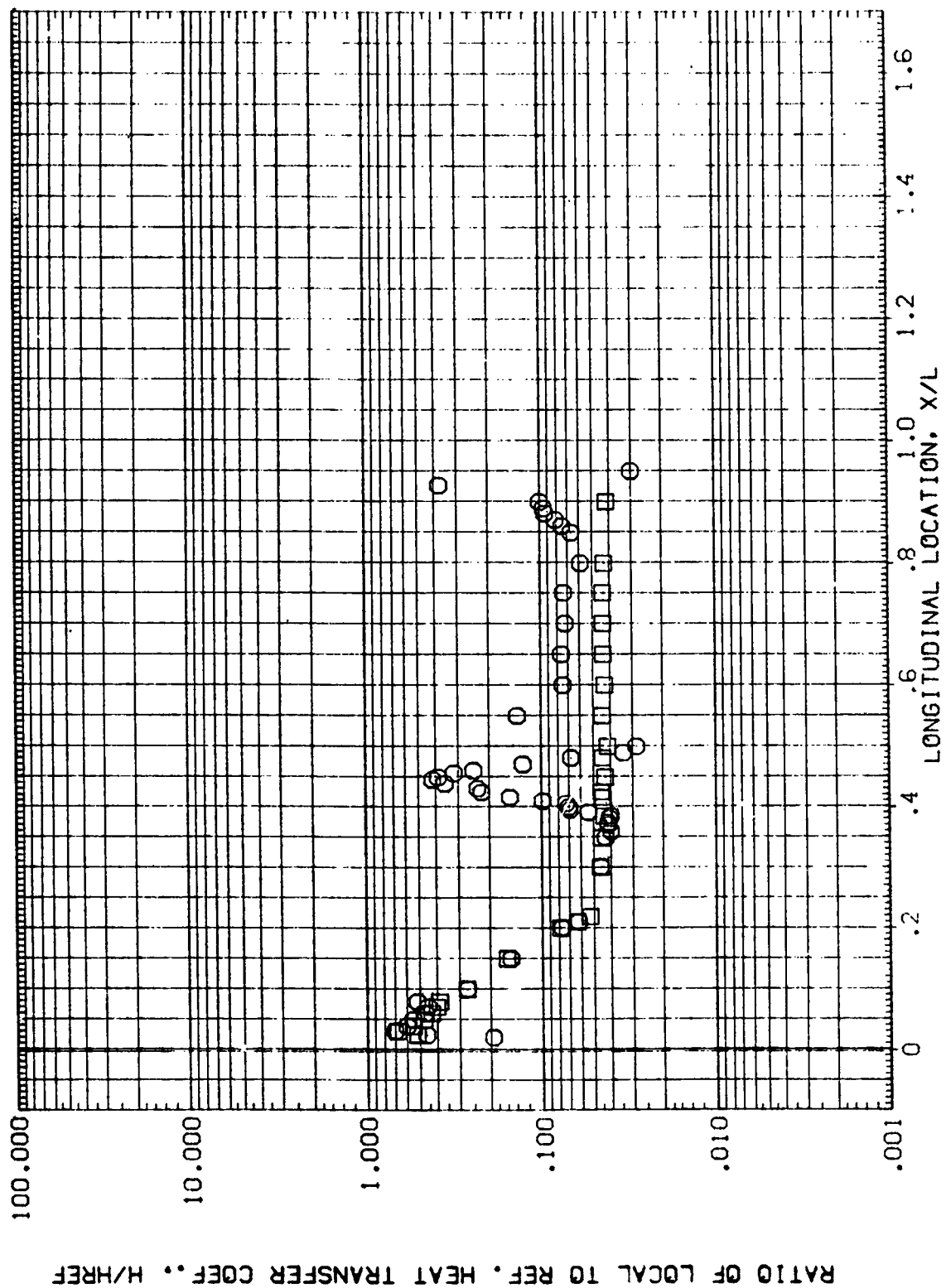


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNBFI4)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA      BETA      RN/L  
 .000      .000      5.000  
 .000      .000      5.000

EXT TANK  
 EXT TANK

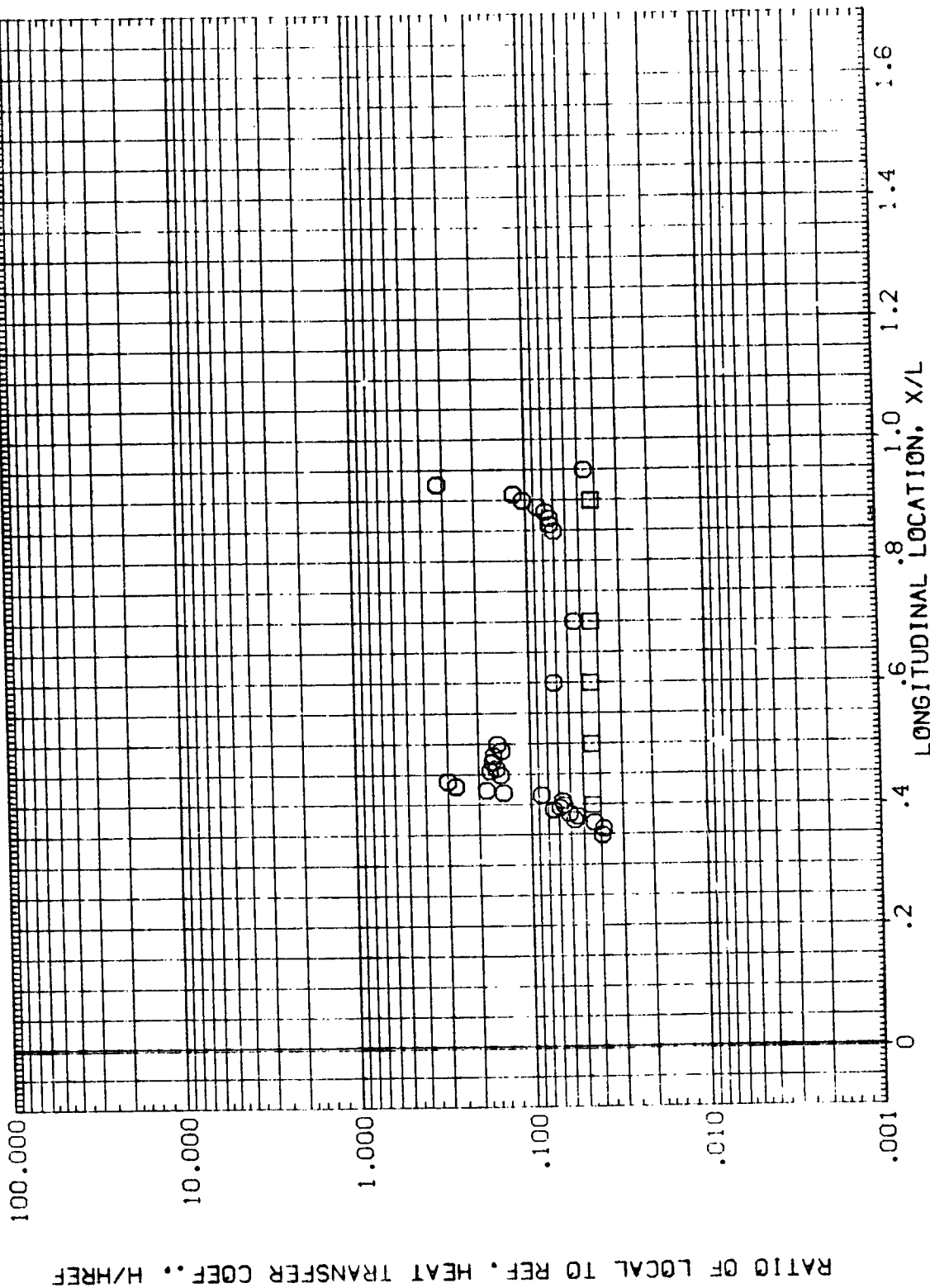


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 191.250

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB14)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      .000      .000      5.000  
 (RNB17)      DATA NOT AVAILABLE      .000      .000      5.000

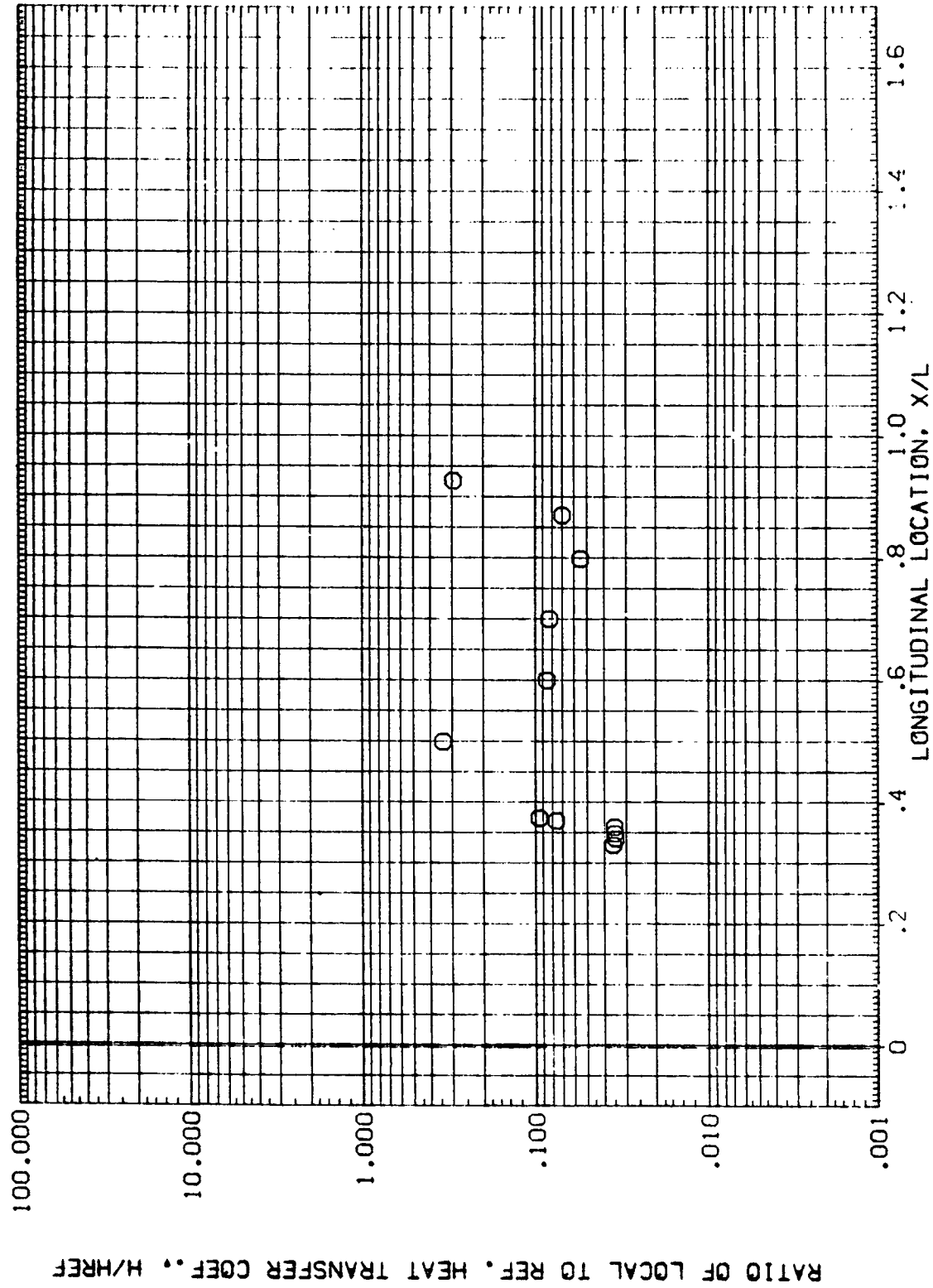


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .300      PHI = 137.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    EXT TANK    ALPHA    BETA    RN/L  
 (RNB14)    ARC3-5-211(1H48)OT /NIPPLE/P/TRIP    .000    .000    5.000  
 (RNB17)    DATA NOT AVAILABLE    .000    .000    5.000

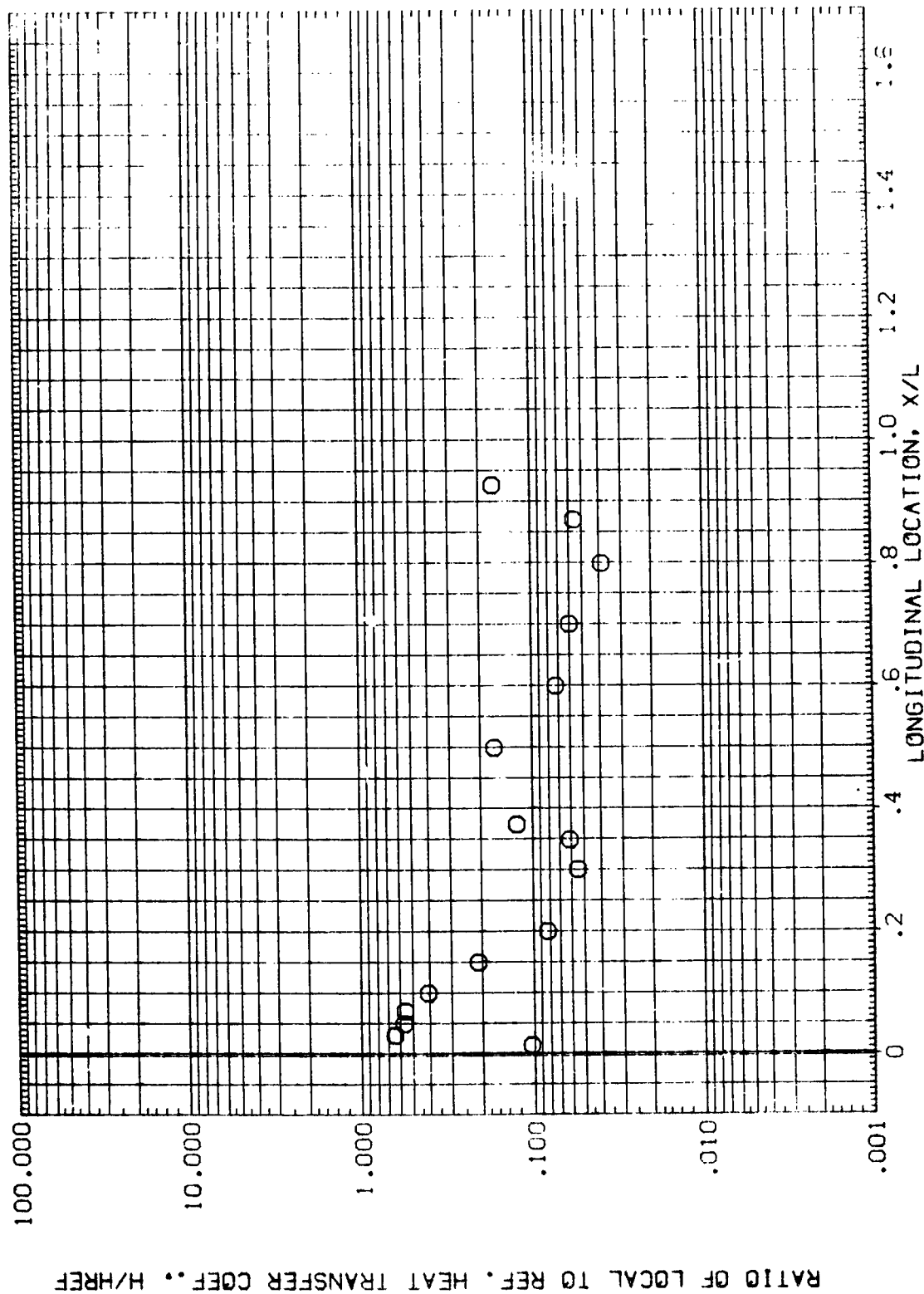


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB14)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      .000      .000      5.000  
 (RNB17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

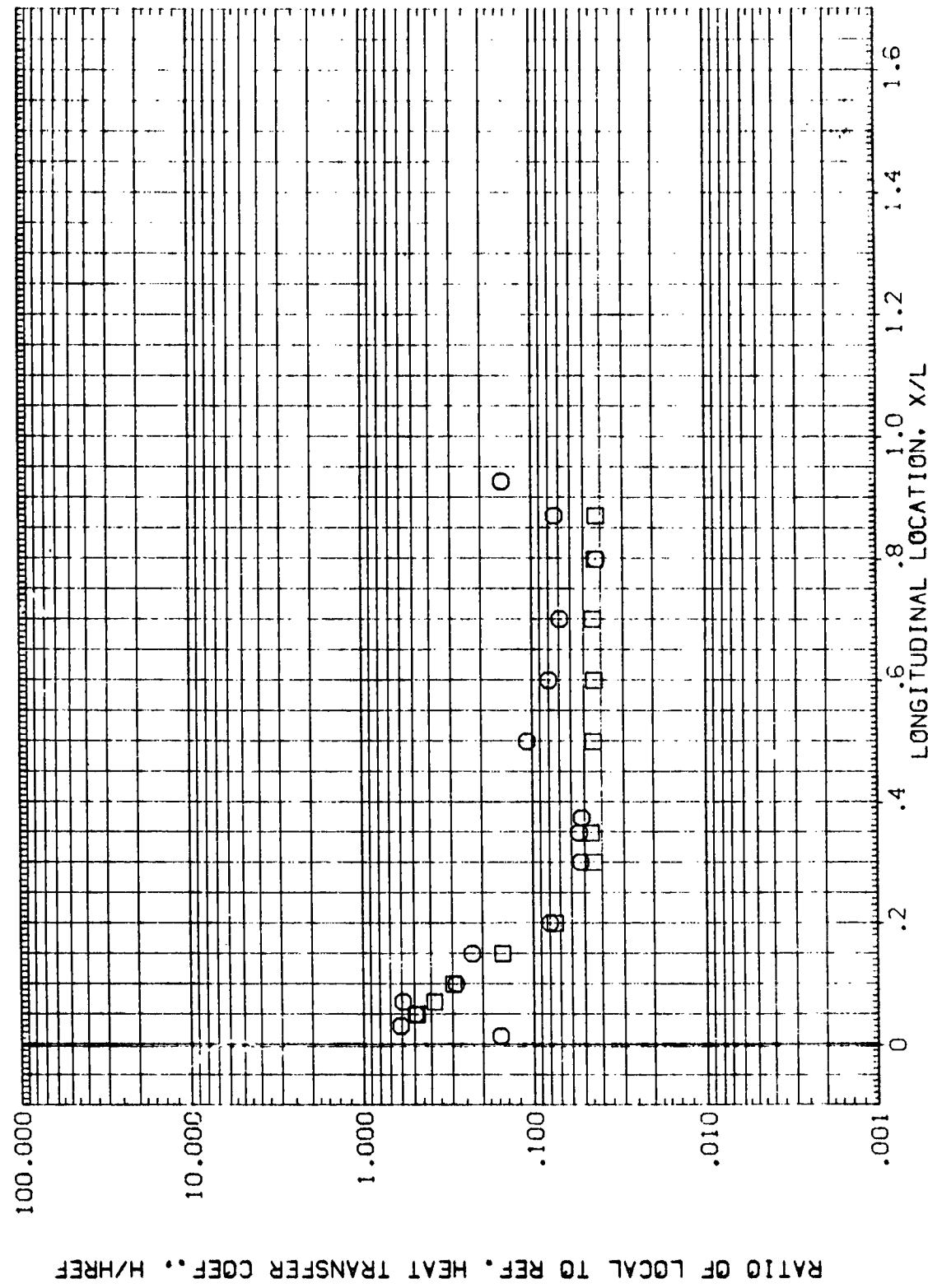


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(BNGF14)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

.000    .000    5.000

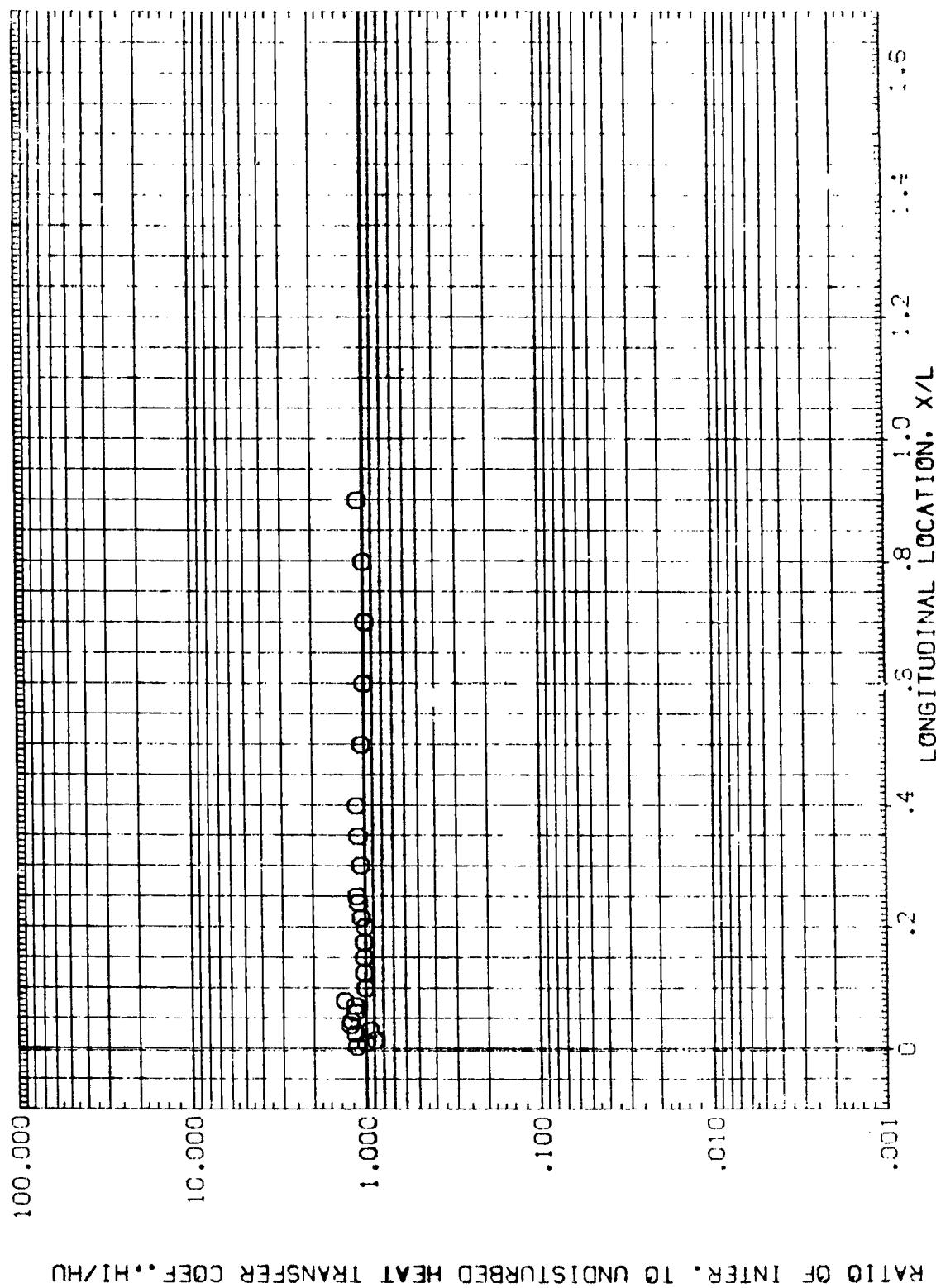


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

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MACH = 5.300    HAW/HT = .300    PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(BNBF14)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    5.000

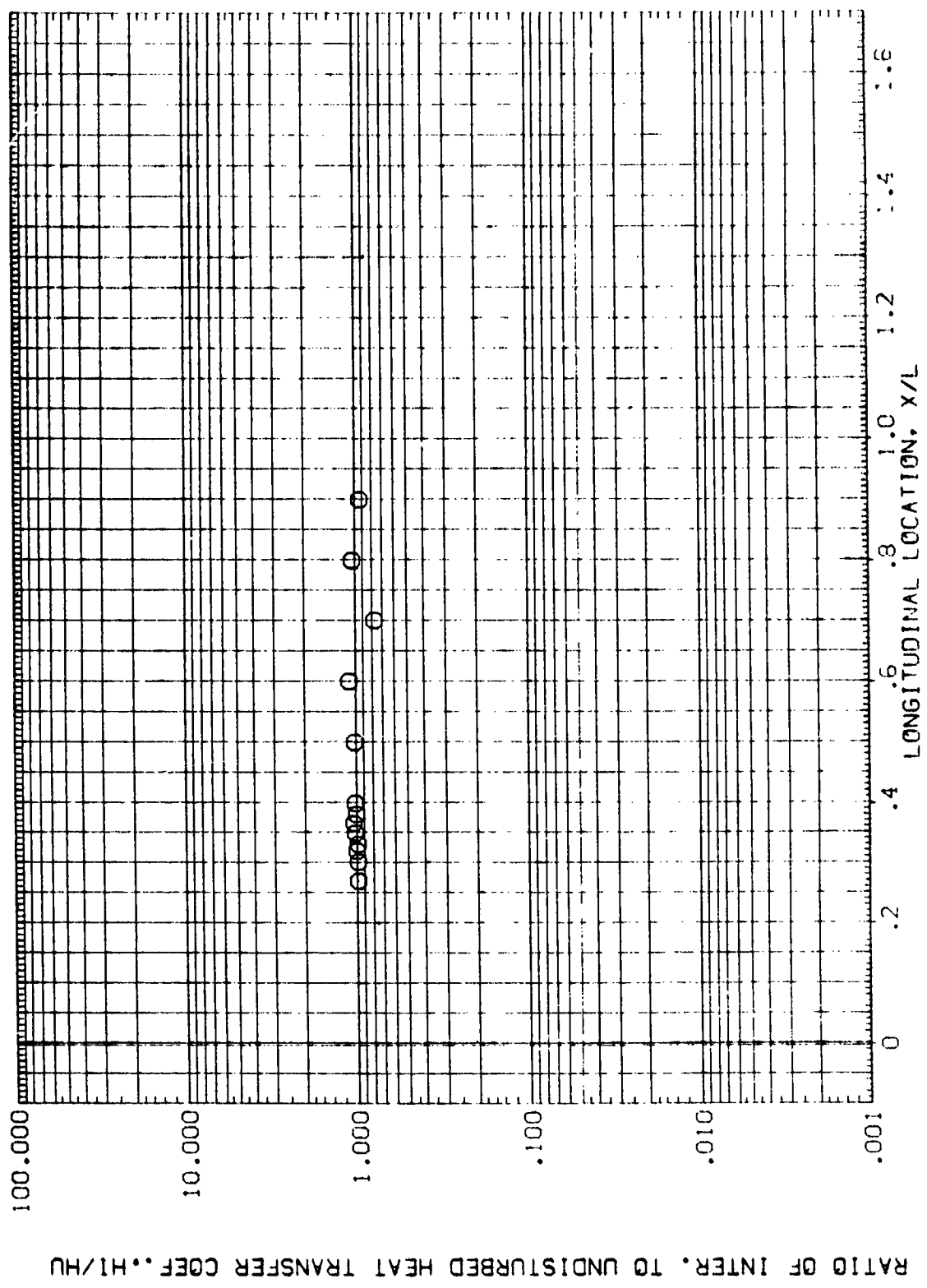


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (BNBFI4)    O    IH-48, AMES 3.5-211, N, N, ET INTERFERENCE DATA    .000    .000    5.000

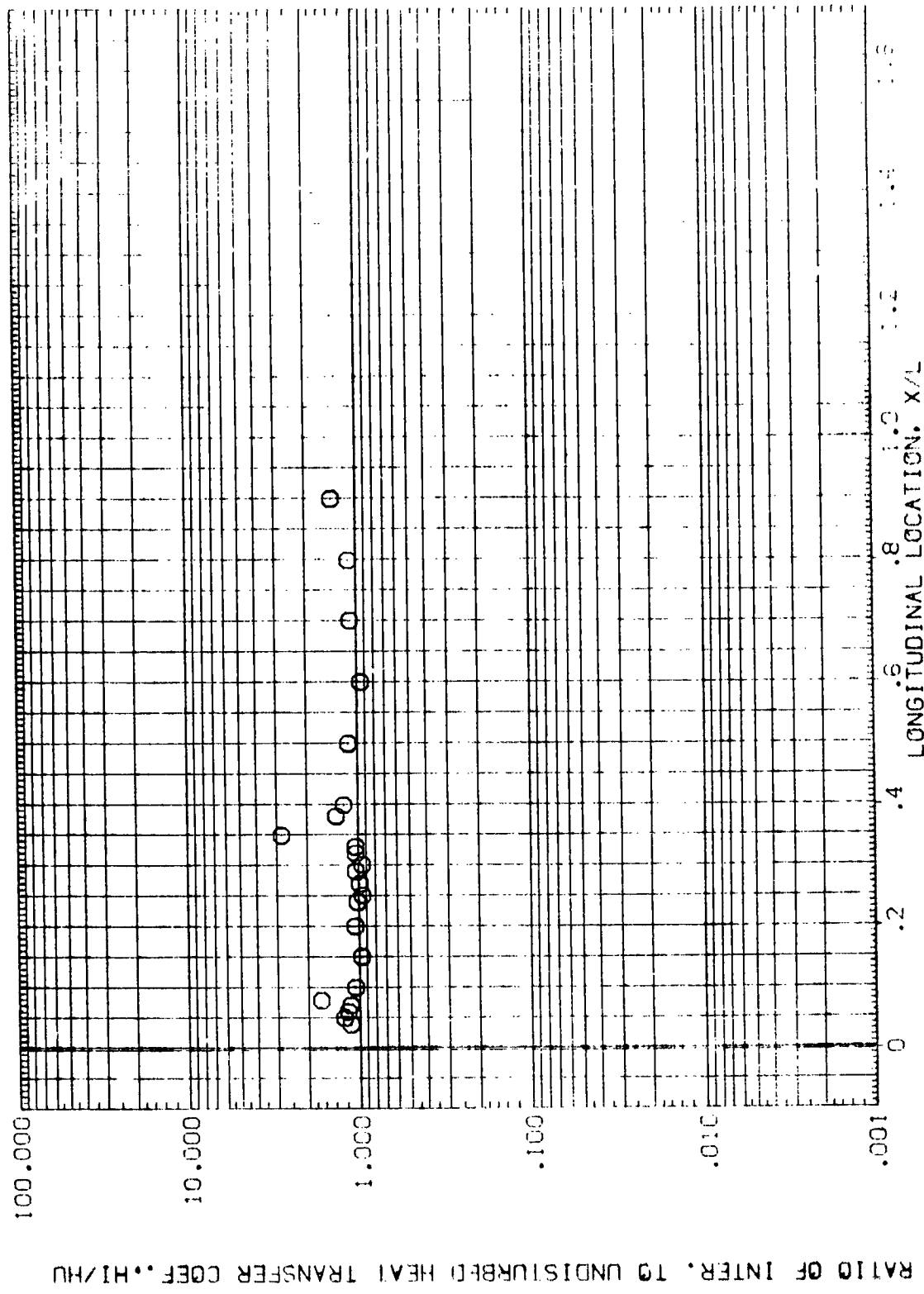


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300     $h_{aw}/h^* = .900$     PHI = 90.000    DATE 1960



DATA SET SYMBOL (BMBF14) ○

CONFIGURATION DESCRIPTION  
IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA .000  
BETA .000  
RN/L 5.000

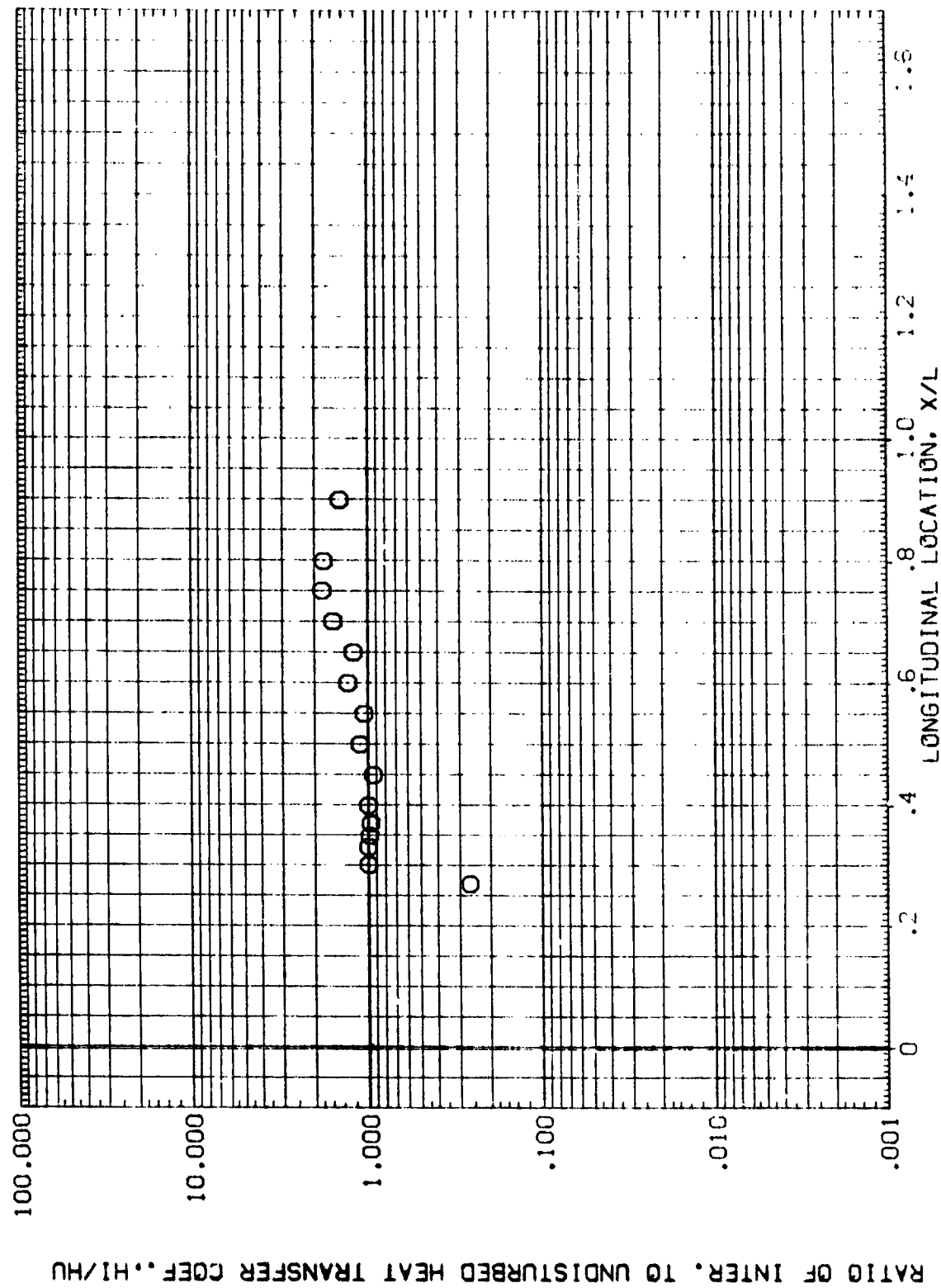


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
(BNSF14)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    5.000

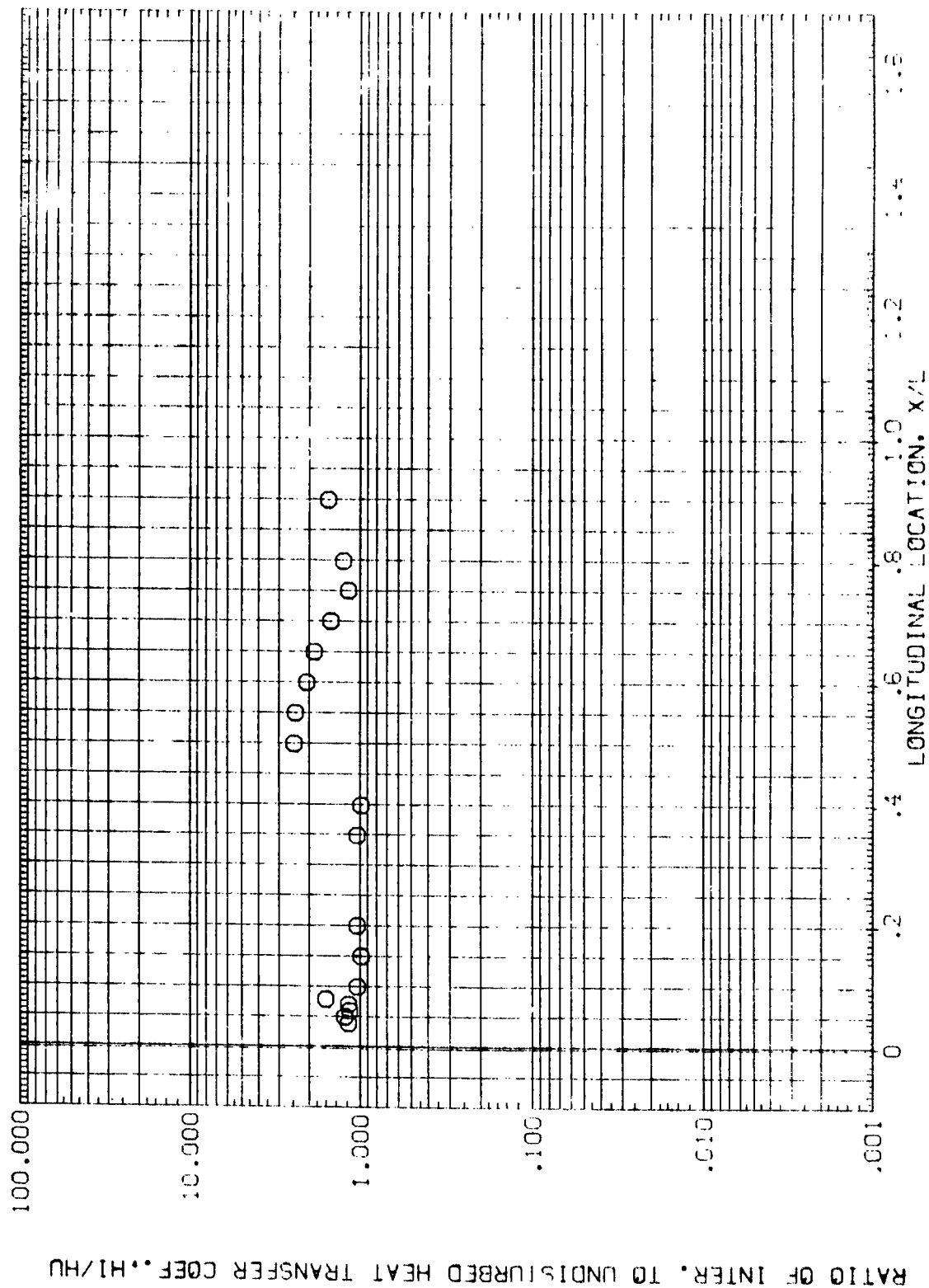


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HTE = .000    PHI = 135.000

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DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA     $Re_L$

(BNGF14)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    .000    .000    5.000

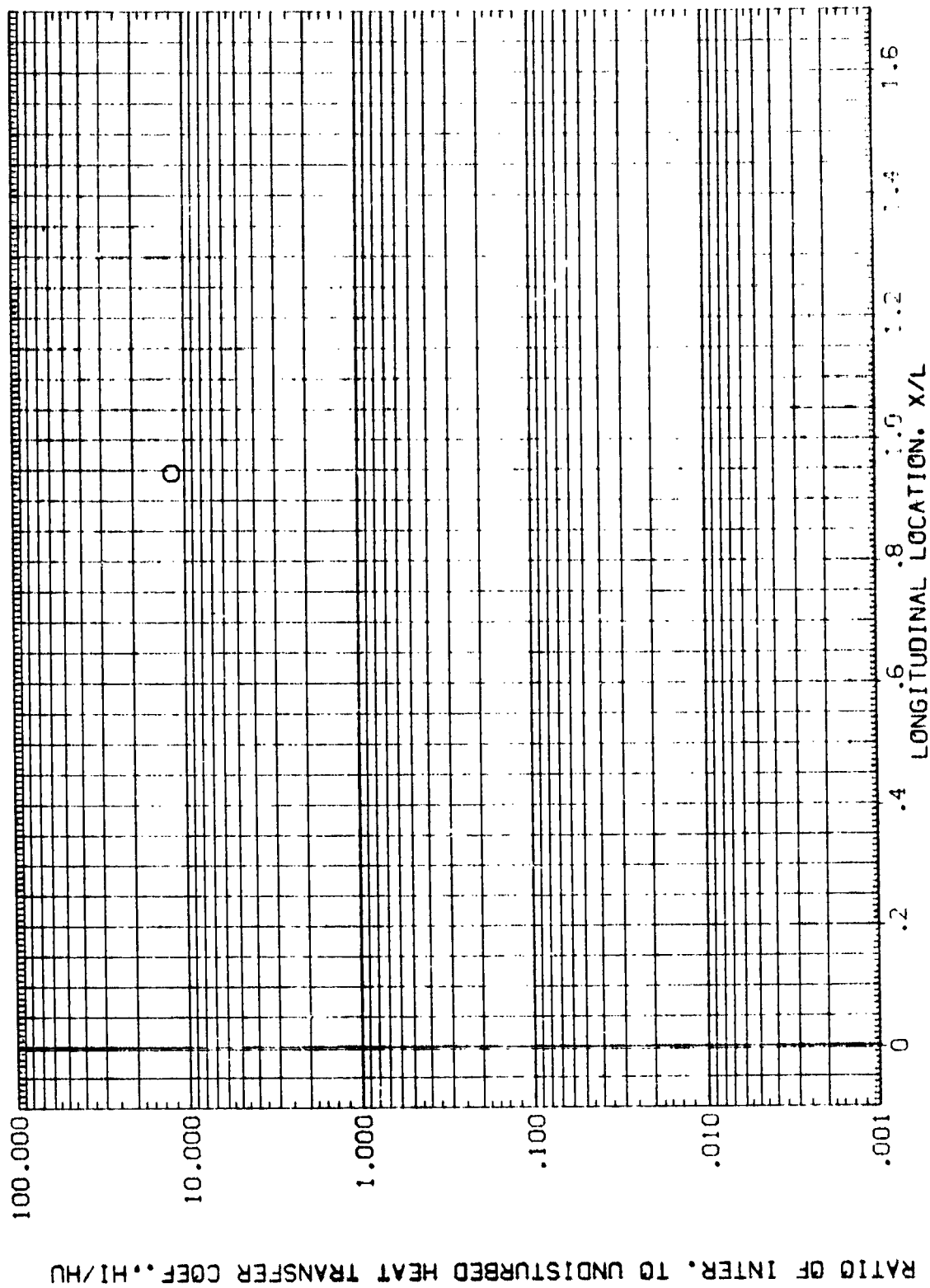


FIG. 05 EFFECT OF ORIFER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/H<sub>T</sub> = .900    PHI = 154.980

DATA SET SYMBOL: (848F14) ○  
 CONFIGURATION DESCRIPTION: IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA: .000  
 BETA: .000  
 R/L: 5.000

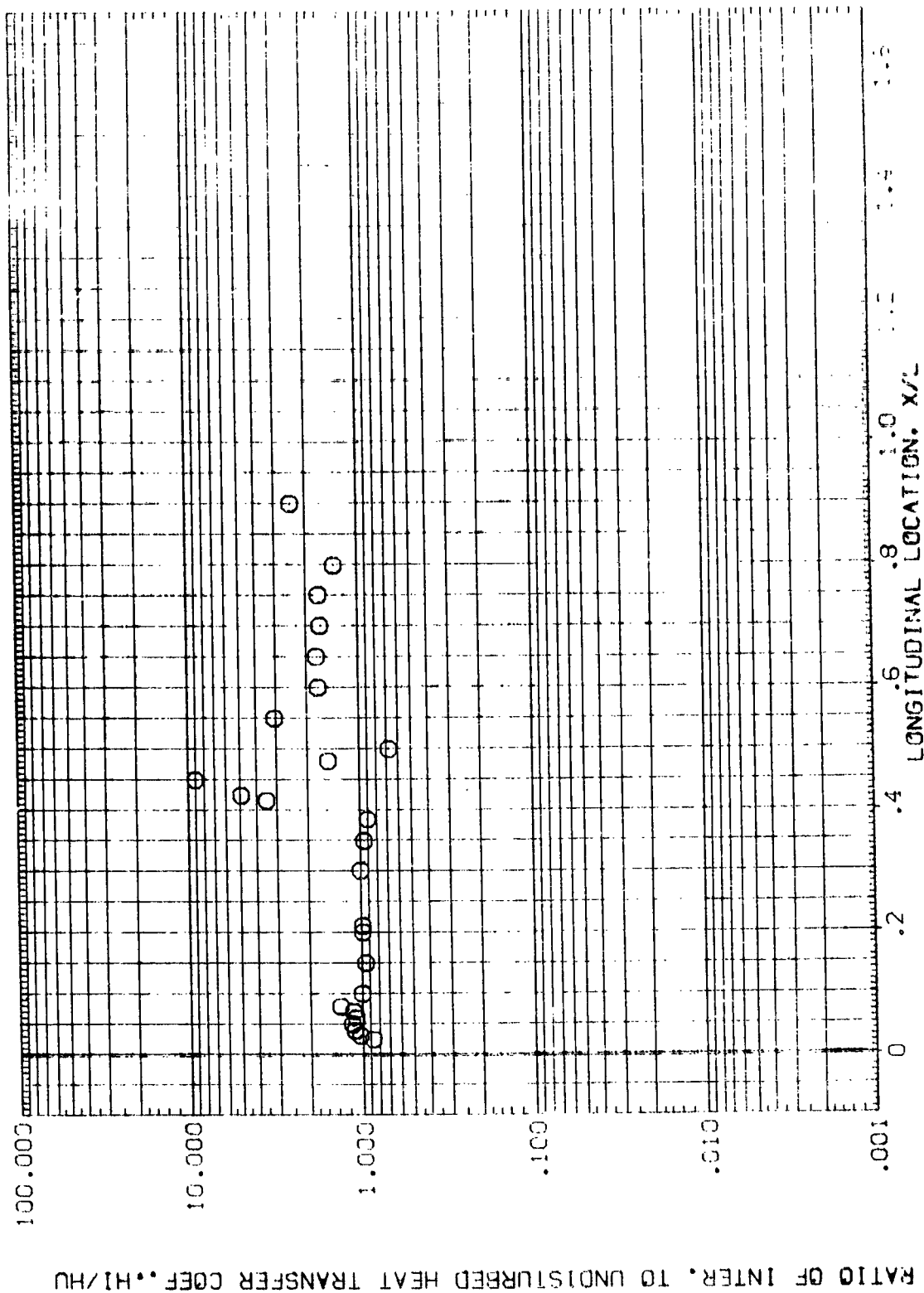


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (808F14)    ○    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA    BETA     $R_{N/L}$   
 .000    .000    5.000

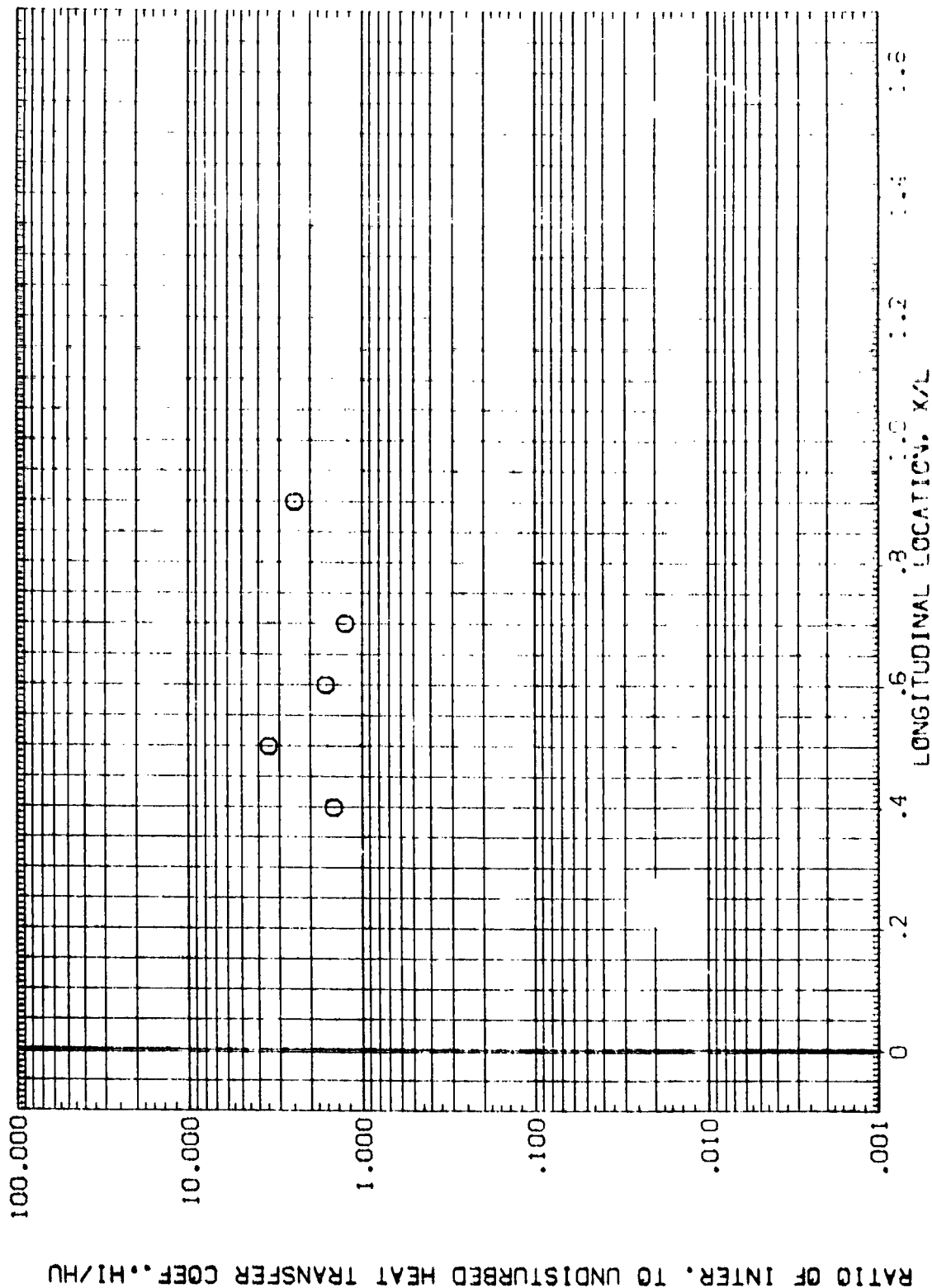


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 101.000

DATA SET SYMBOL (BNBF14) ○ CONFIGURATION DESCRIPTION (H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA .000 BETA .000 RN/L 5.000

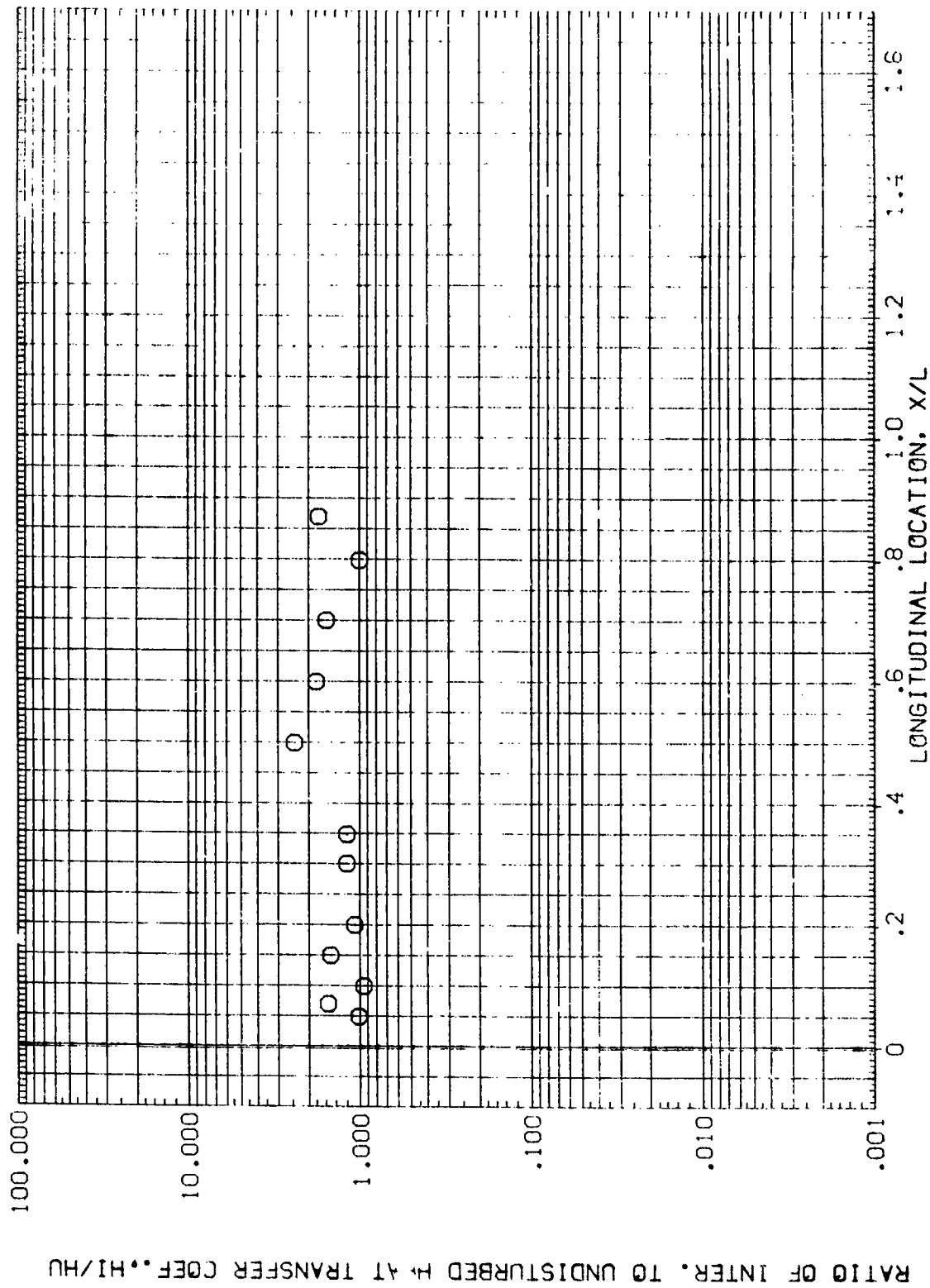


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000  
 (RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

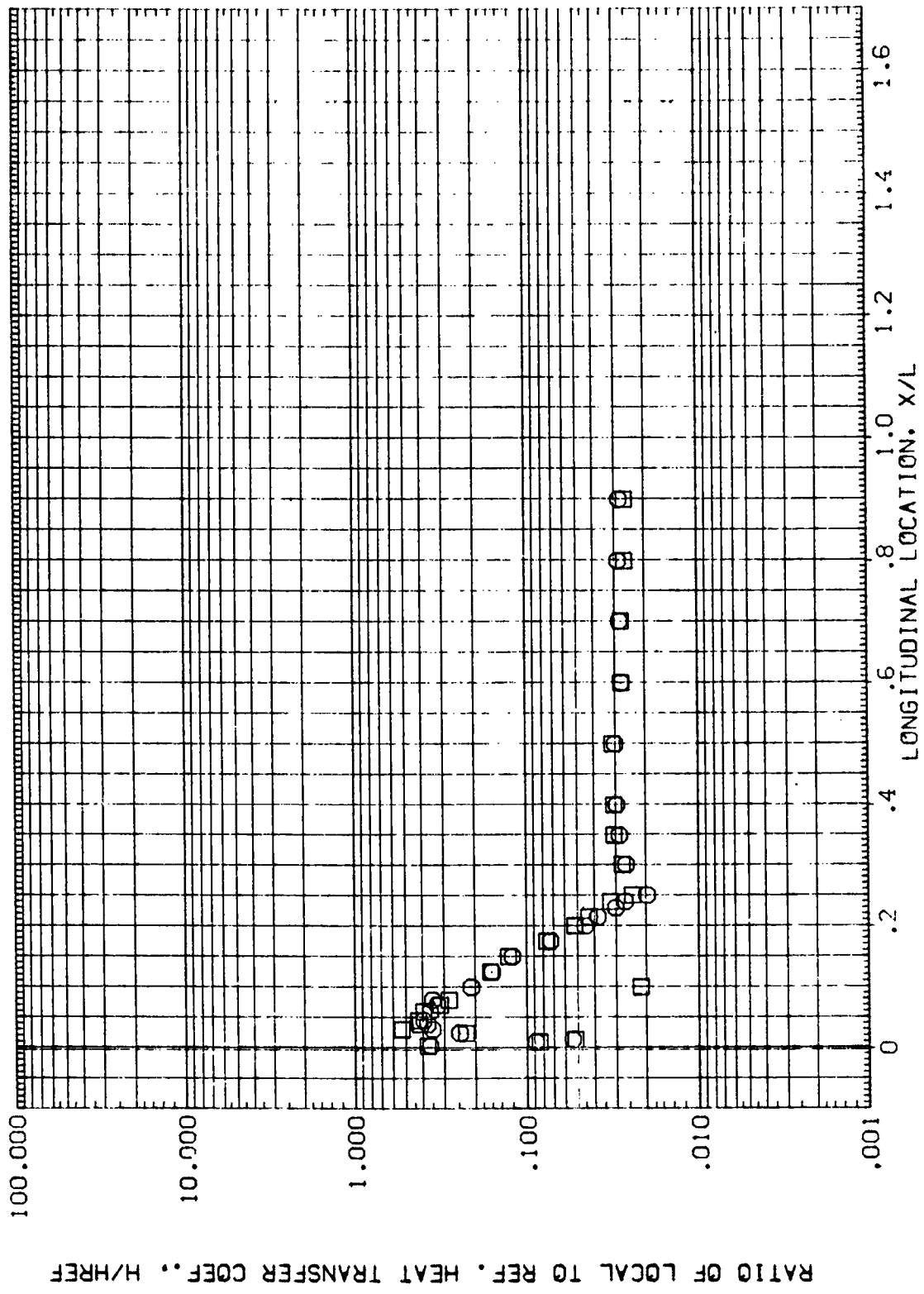


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFI5)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 (RNBFI8)    DATA NOT AVAILABLE

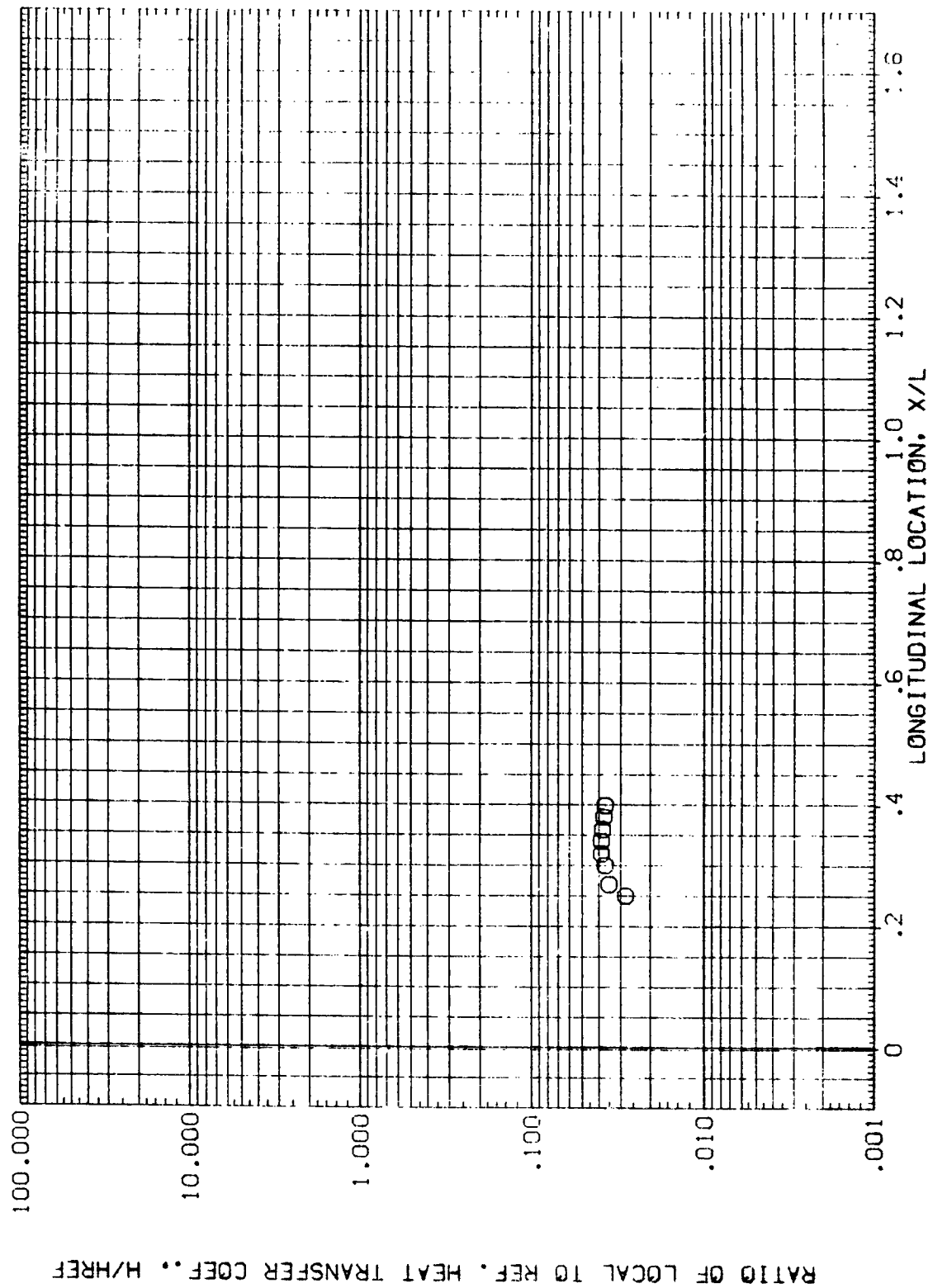


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 55.000



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFI5)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 (RNBFI8)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN    -5.000    .000    5.000

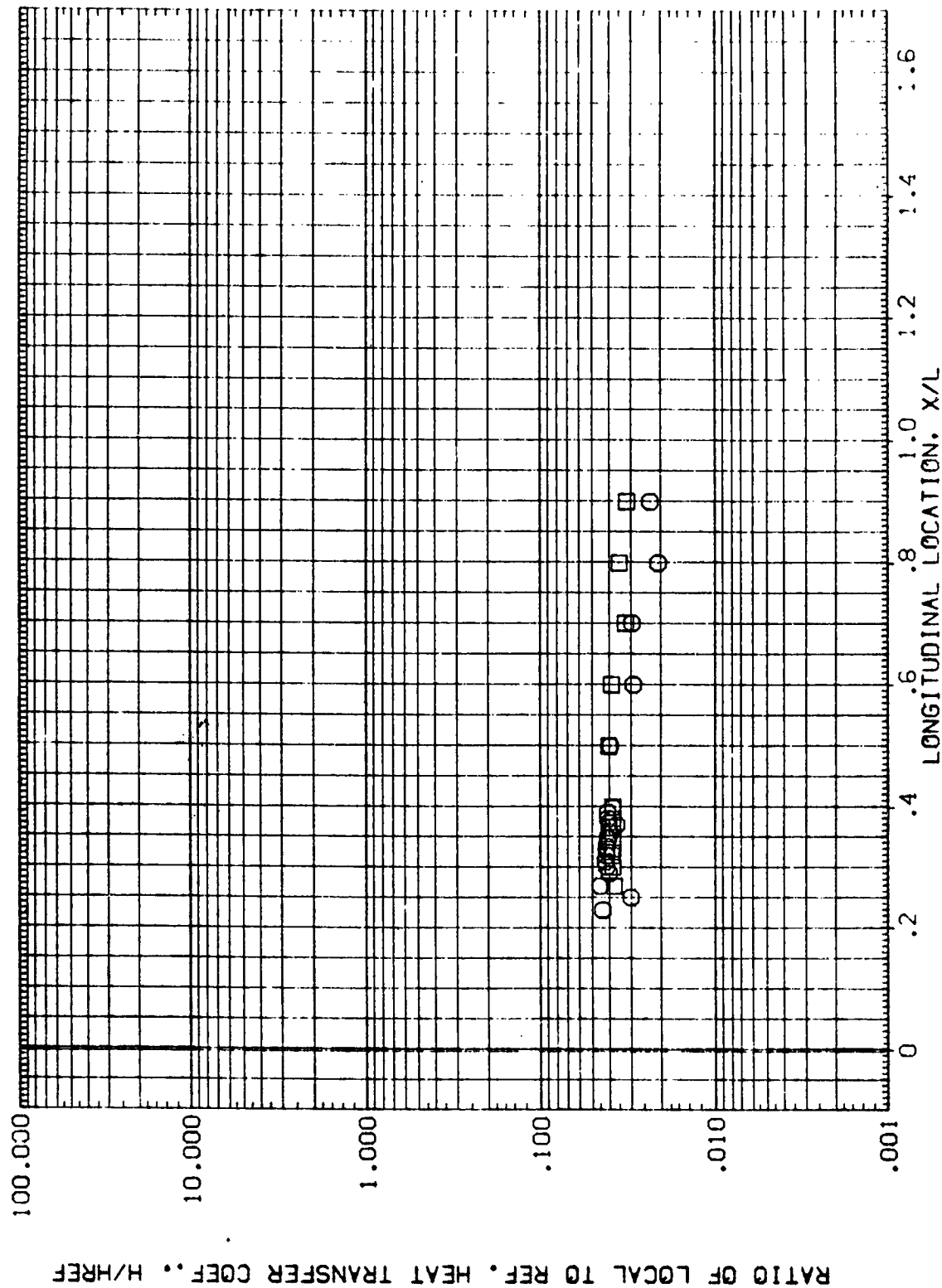


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 67.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RHSF15) ARC3.5-211C(H48)OT /NIPPLE/P/TRIP  
 (RHSF18) DATA NOT AVAILABLE

EXT TANK ALPHA BETA RV/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

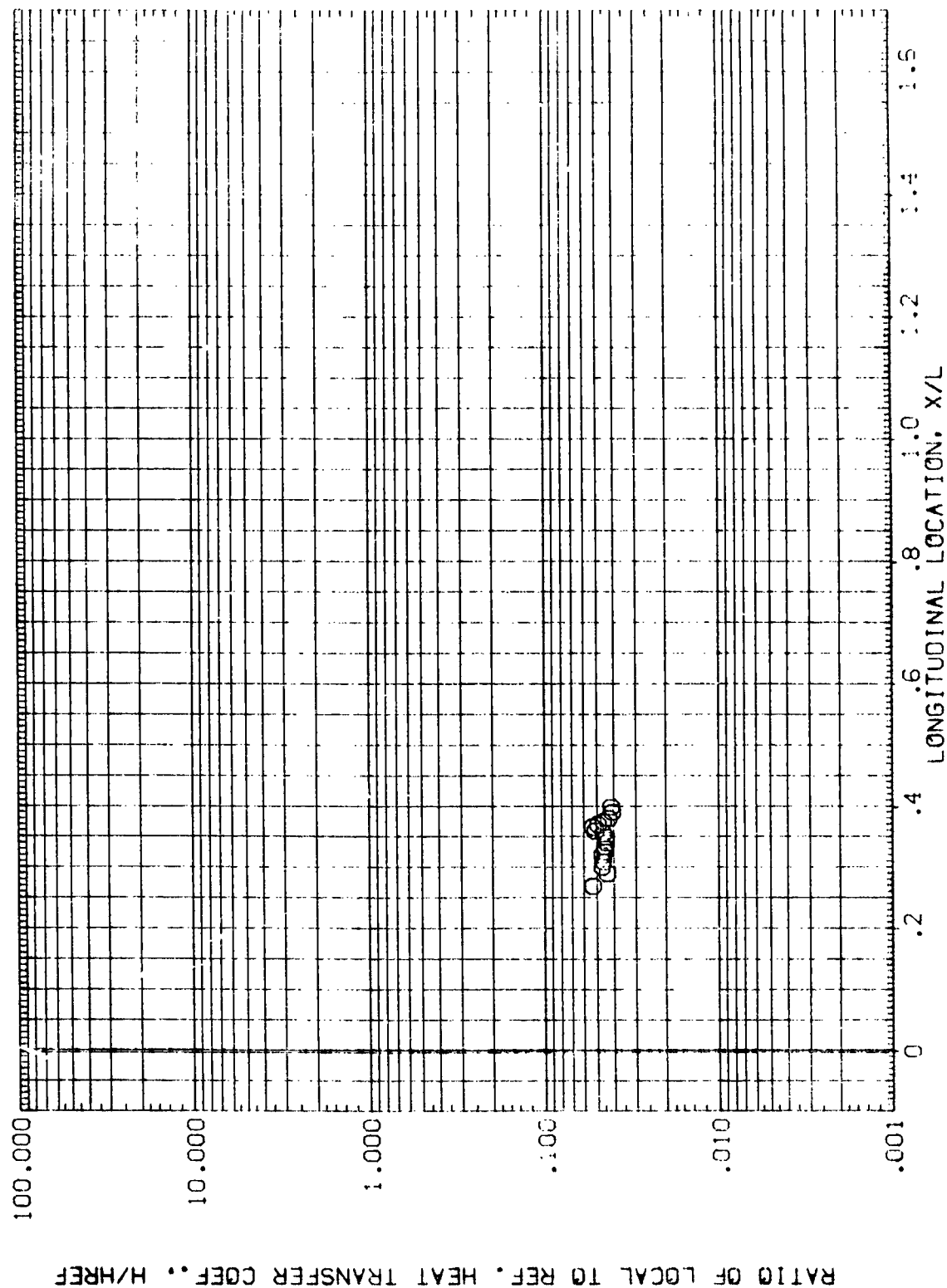


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNGF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNGF18) ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK  
 EXT TANK  
 ALPHA -5.000  
 BETA .000  
 RN: 5.000  
 5.000

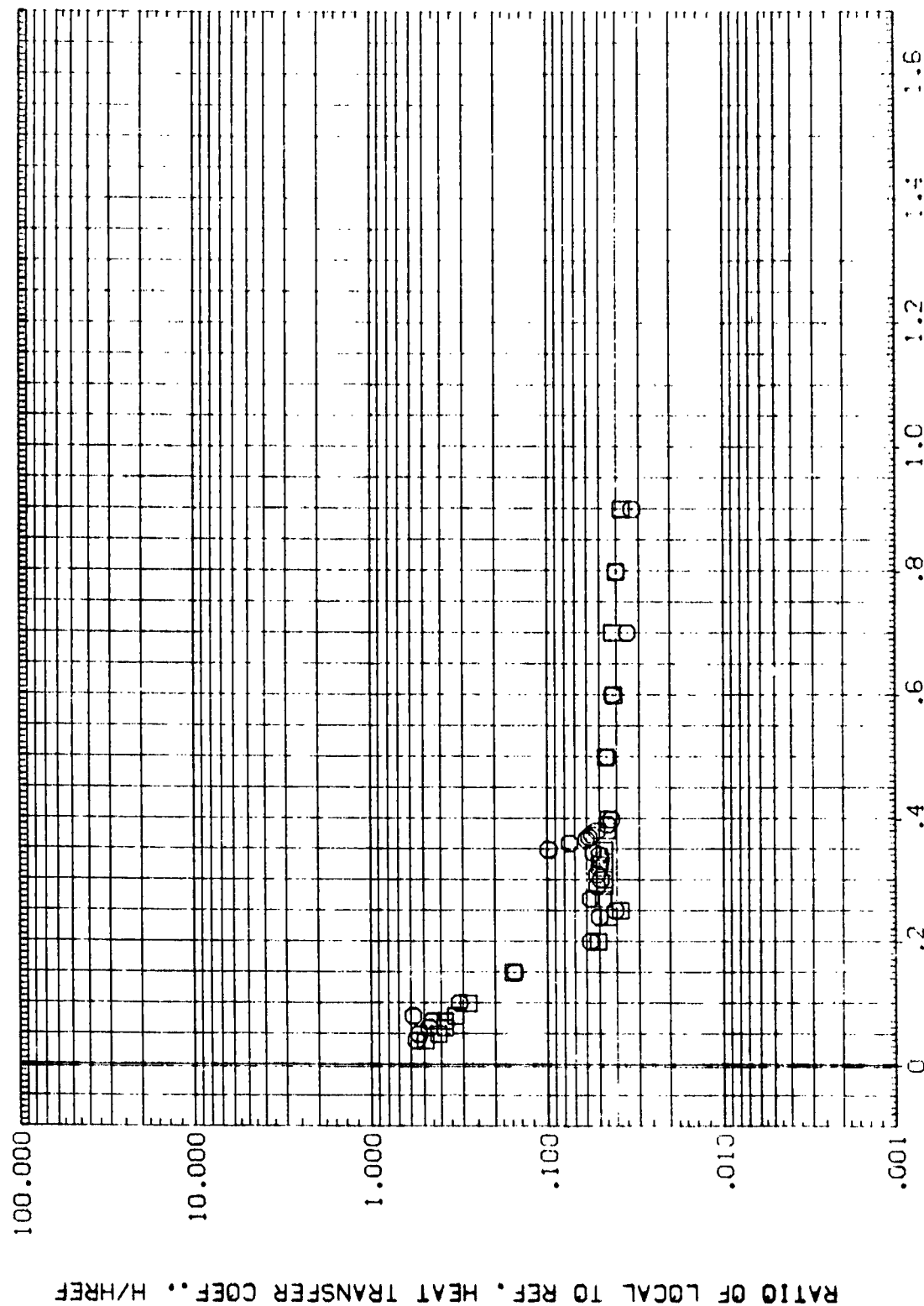


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 30.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (P&B) 15) ARC3.5-211(1H48)OT /NIPPLE/P/TRIP  
 (P&B) 16) ARC3.5-211(1H48)ET /NIPPLE/CLEAN

EXT TANK EXT TANK  
 ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

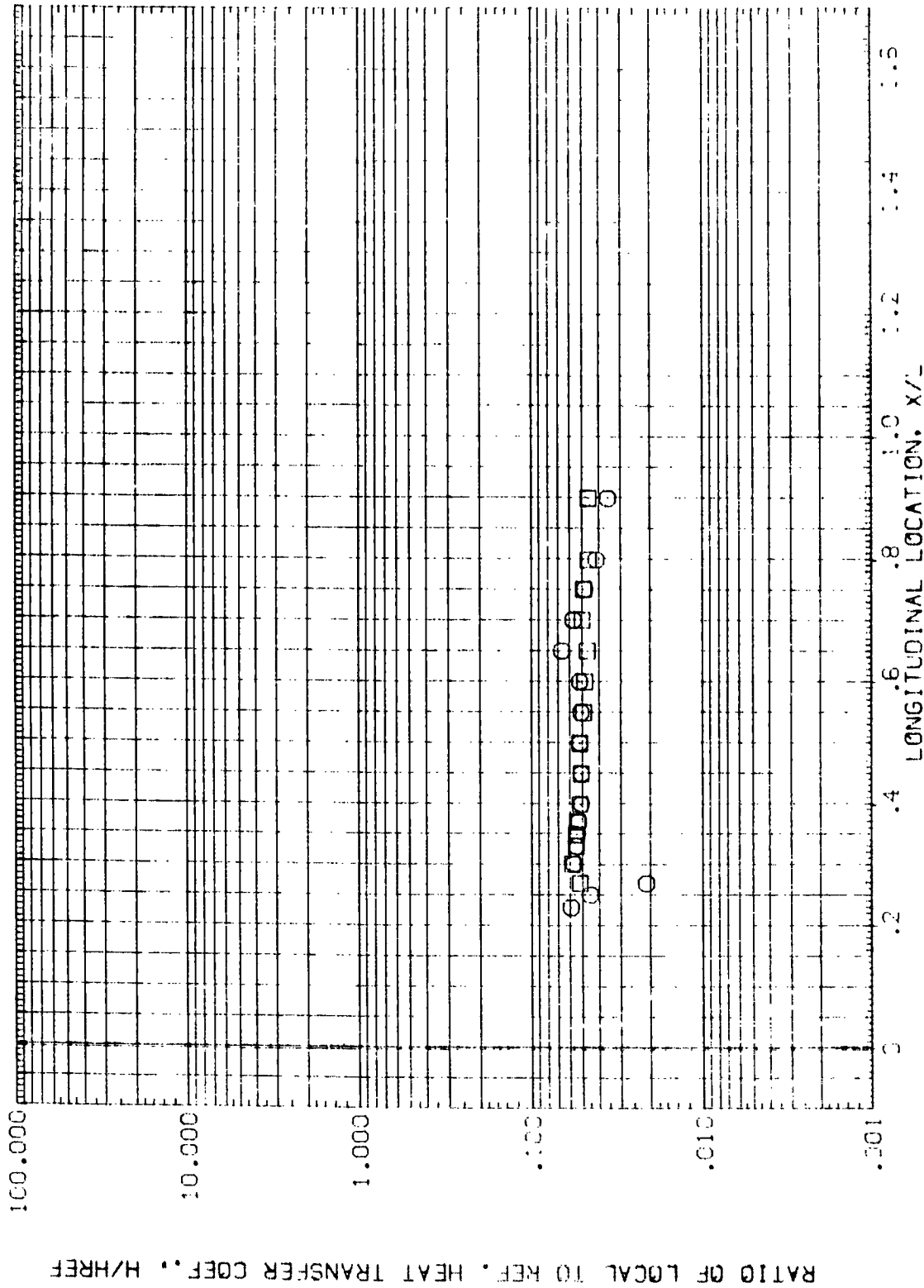


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

W/CN = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R:BF15) ARC3-5-211CH48JOT /NIPPLE/P/TRIP  
 (R:BF18) DATA NOT AVAILABLE

EXT TANK ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

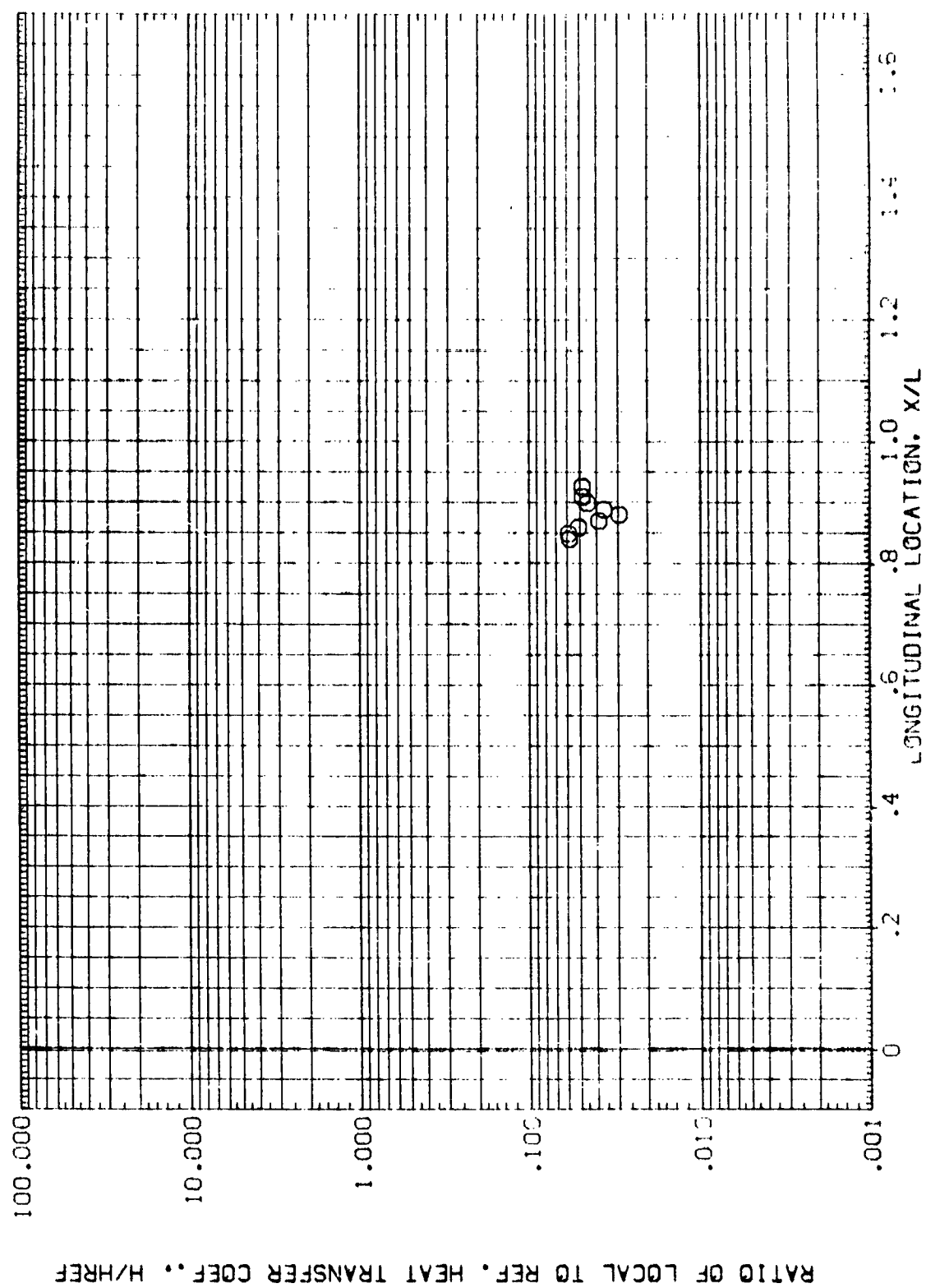


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/MT = .900 PHI = 125.400

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RAYL  
 (R-8F15)    ARC3-5-211(C1H48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 (R-8F16)    DATA NOT AVAILABLE    -5.000    .000    5.000

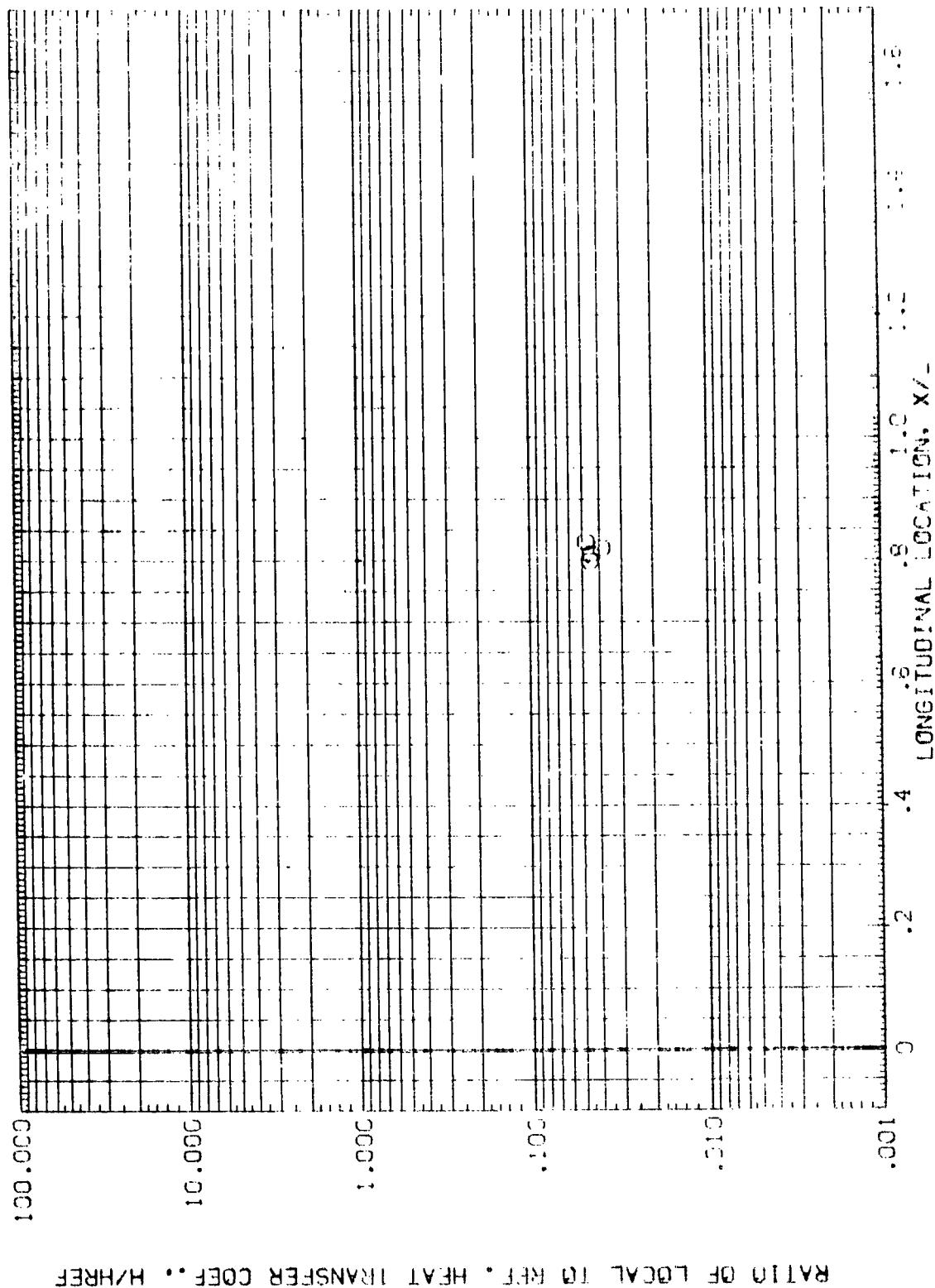


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 129.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNGF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNGF16) ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA BETA RV/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

□

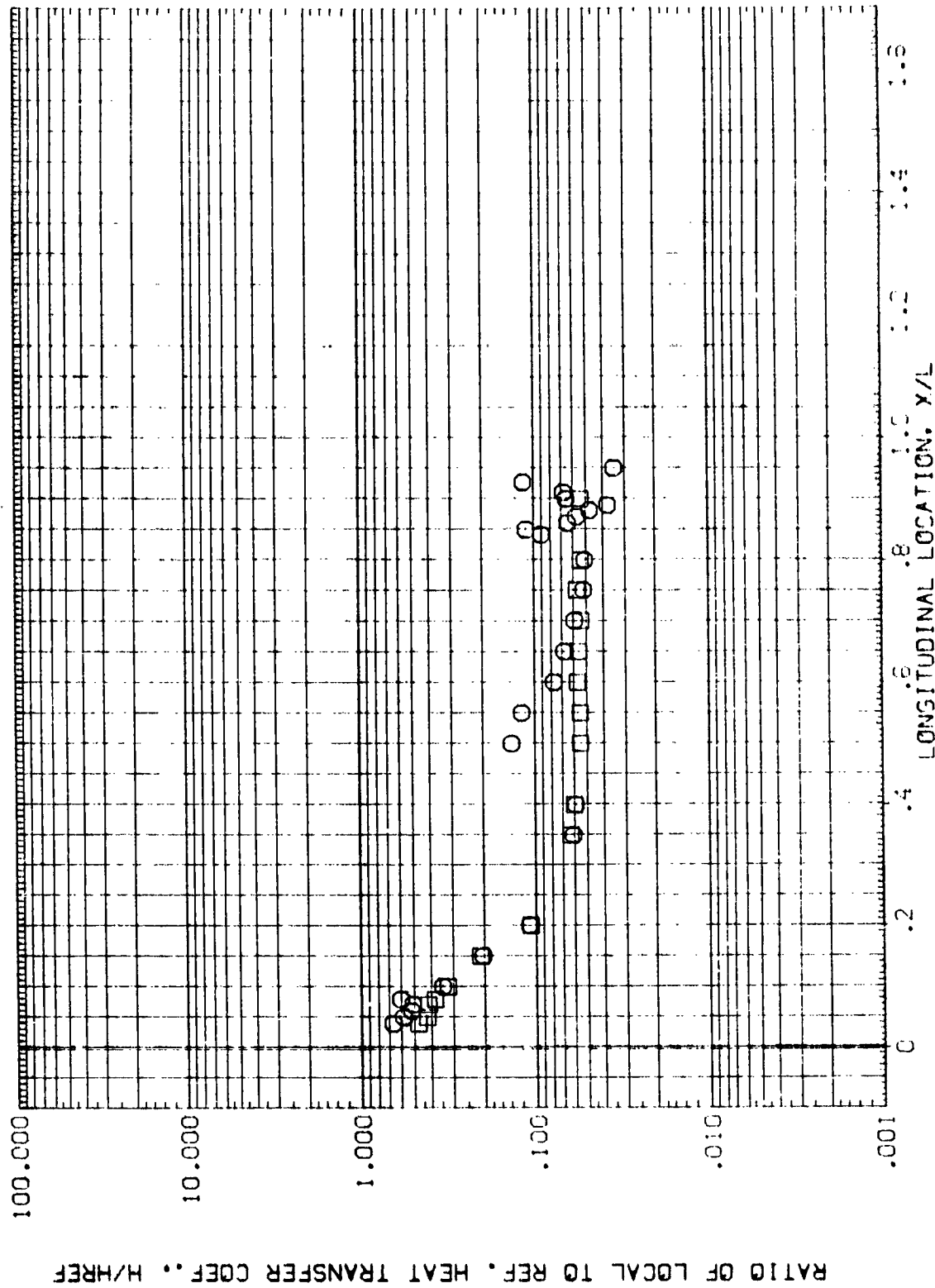


FIG. 05 EFFECT OF CRBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .300 THE = 100.000

DATA SET 51500L CONFIGURATION DESCRIPTION  
 (R3B15) ARC3.5-211(148)0T /NIPPLE/P/TRIP  
 (R3B18) DATA NOT AVAILABLE

EXT TANK ALP-A BETA RM-L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

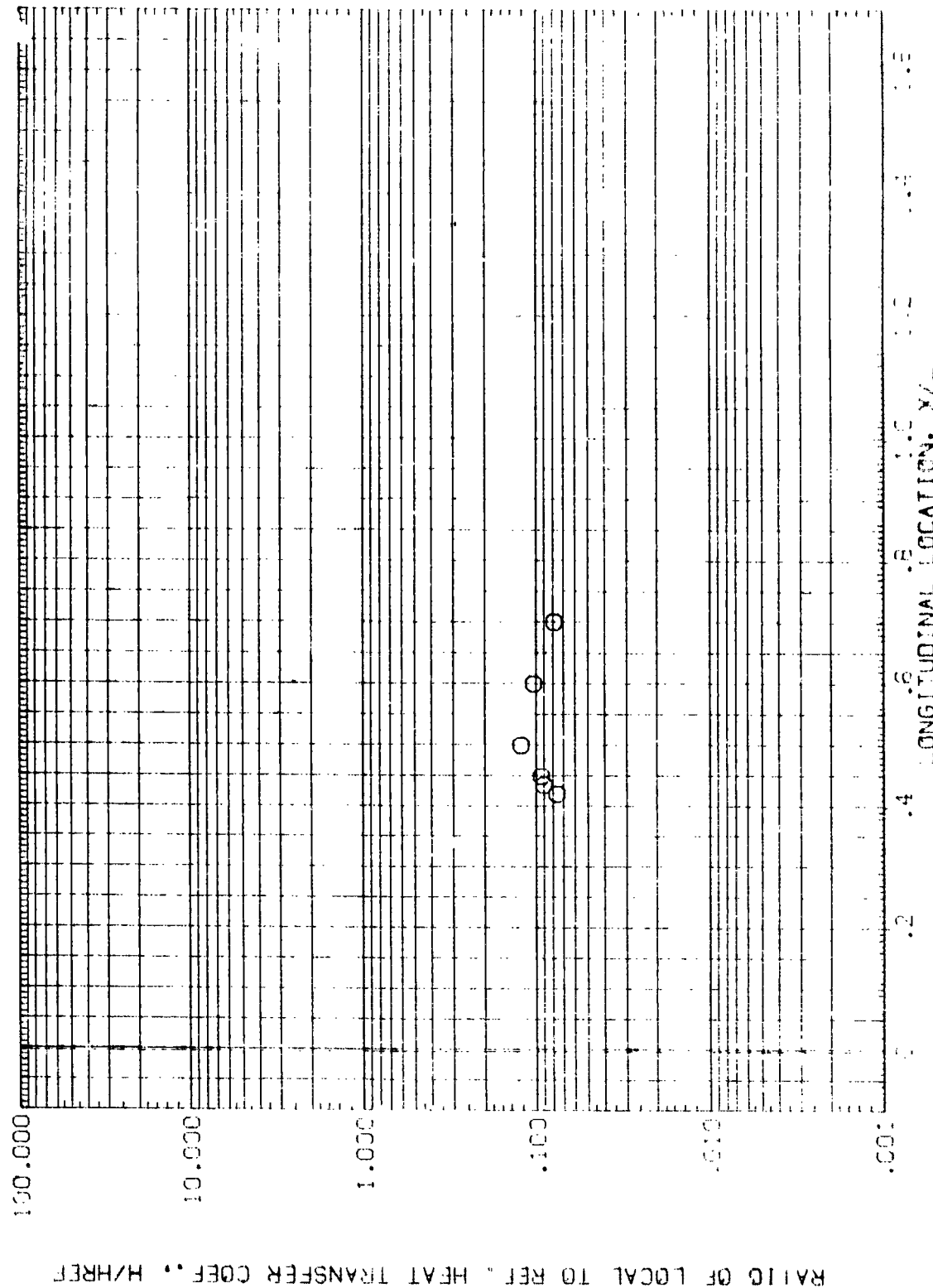


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .000 PHI = 147.300

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DATA SET SYMBOL: ☐ ARC3.5-211(1H48)OT /NIPPLE/P/TRIP  
 (RNBFI5)  
 (RNBFI6)  
 CONFIGURATION DESCRIPTION  
 ARC3.5-211(1H48)ET /NIPPLE/CLEAN  
 ALPHA -5.000  
 BETA .000  
 RN/L 5.000

EXT TANK  
 EXT TANK

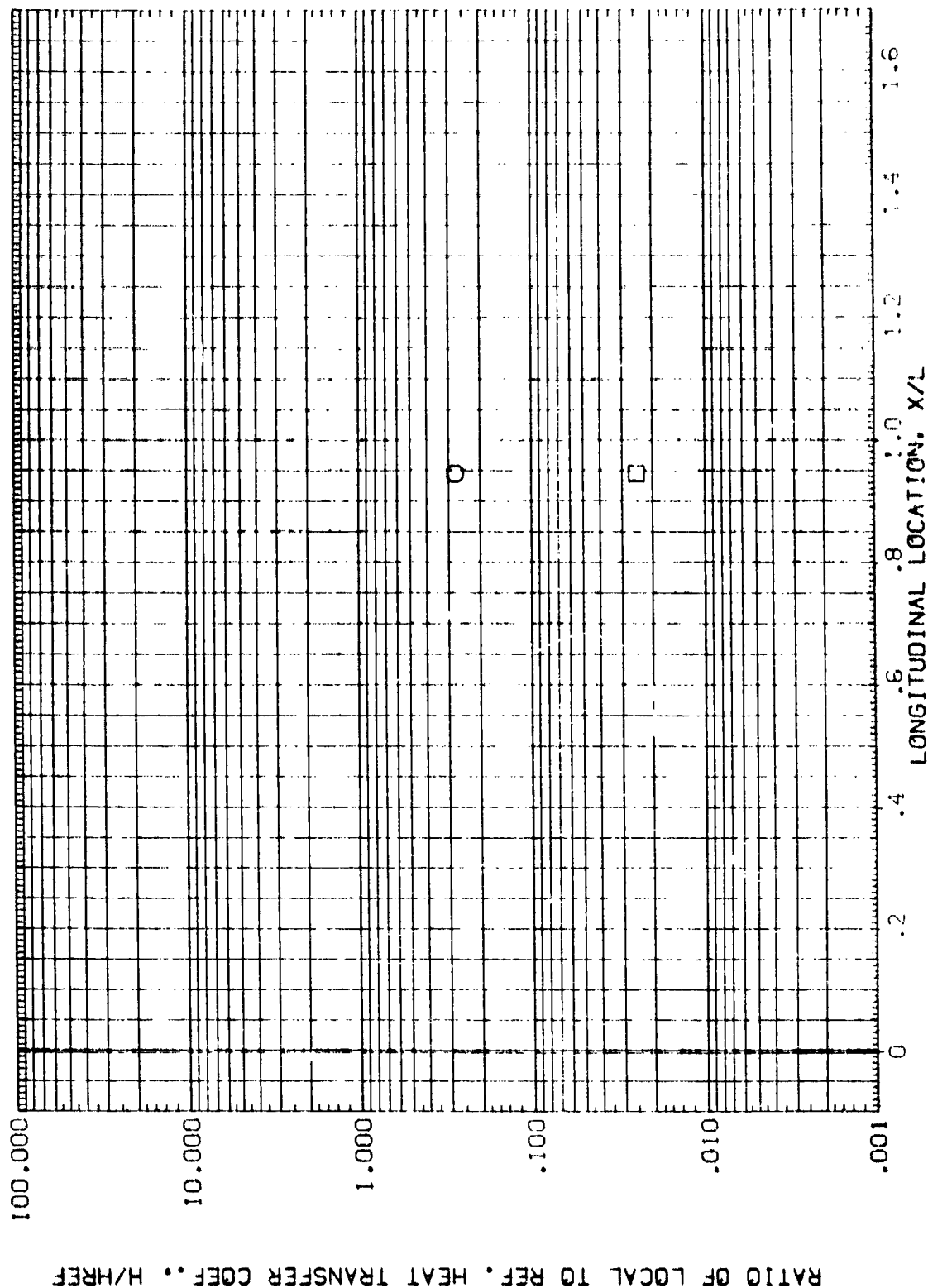


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL: B  
 (RNF15)  
 (RNF18)

CONFIGURATION DESCRIPTION

ARC3.5-211C1H48)OT /NIPPLE/P/TRIP  
 DATA NOT AVAILABLE

EXT TANK

ALPHA  
 -5.000  
 -5.000

BETA  
 .000  
 .000

RM.  
 5.000  
 5.000

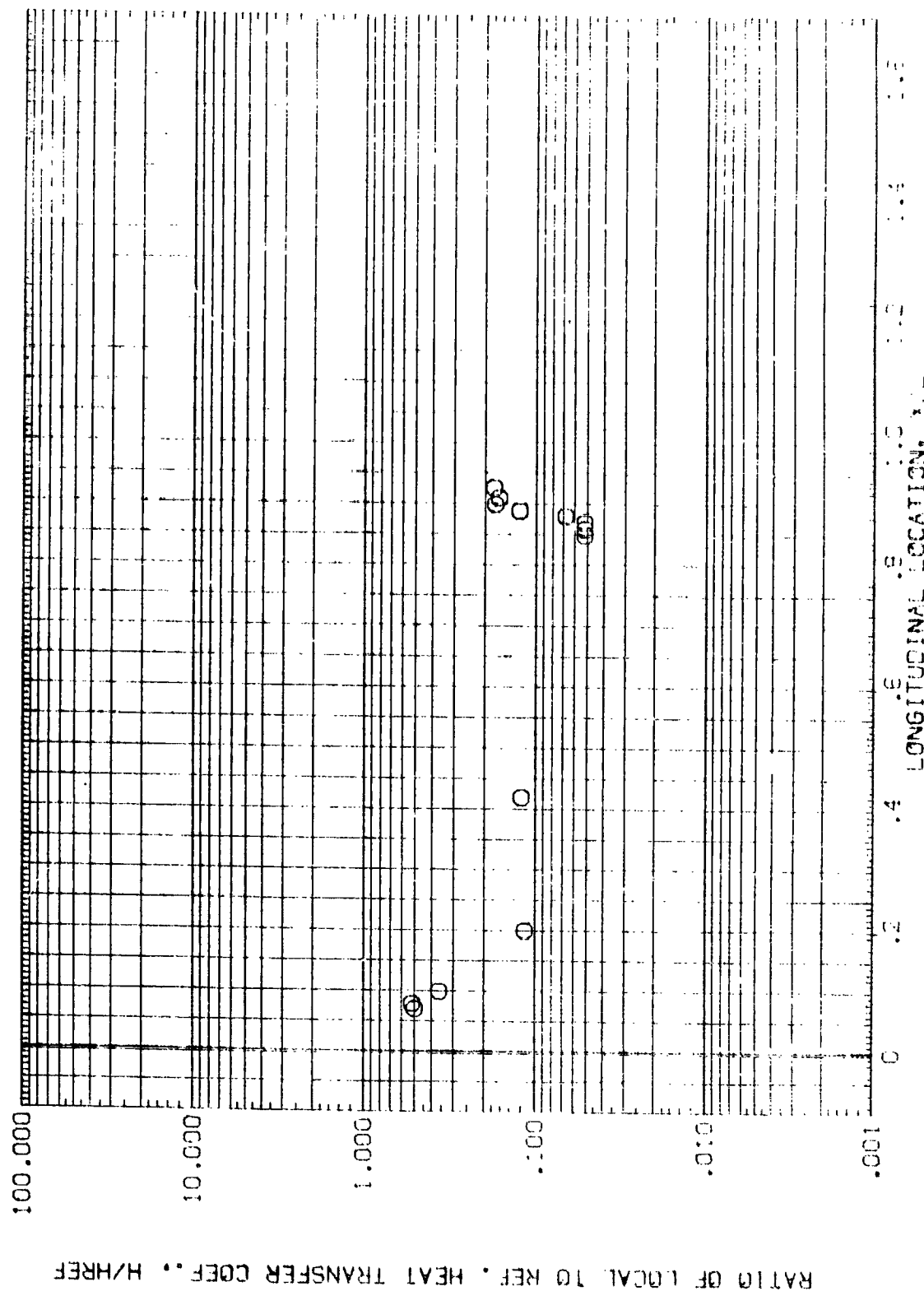


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

WACH = 5.300 WACH/T = .000 BAC = 157.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNGF15)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNGF18)    DATA NOT AVAILABLE

ALPHA    BETA    FUEL  
 -5.000    .000    5.000  
 -5.000    .000    5.000

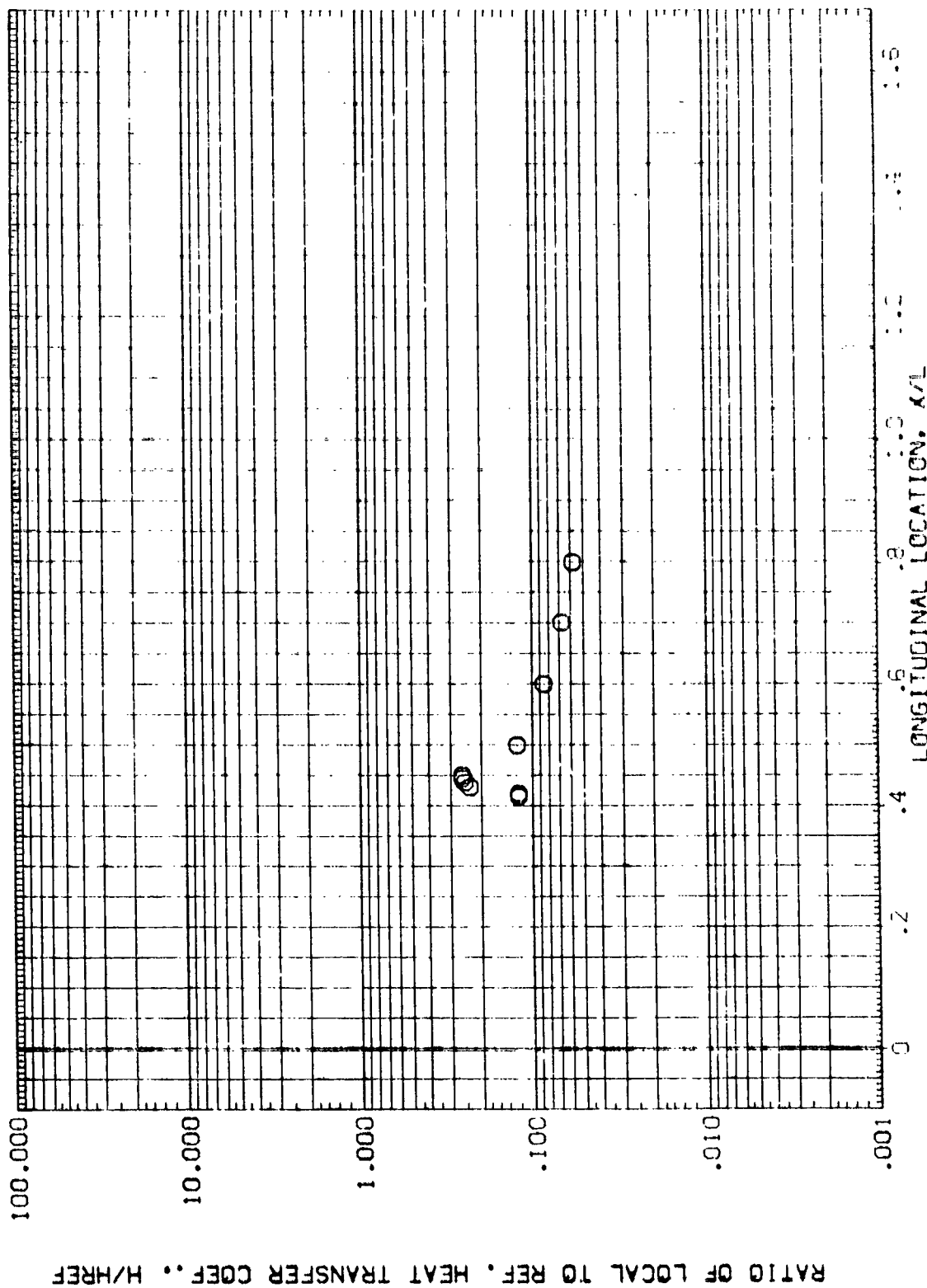


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAWKING    1.00    1.00

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB15) E ARC3-S-211(IH48)OT /NIPPLE/P/TRIP  
 (RNB18) DATA NOT AVAILABLE

EXT TANK ALPHA BETA RNV/L  
 -5.000 .000 5.000

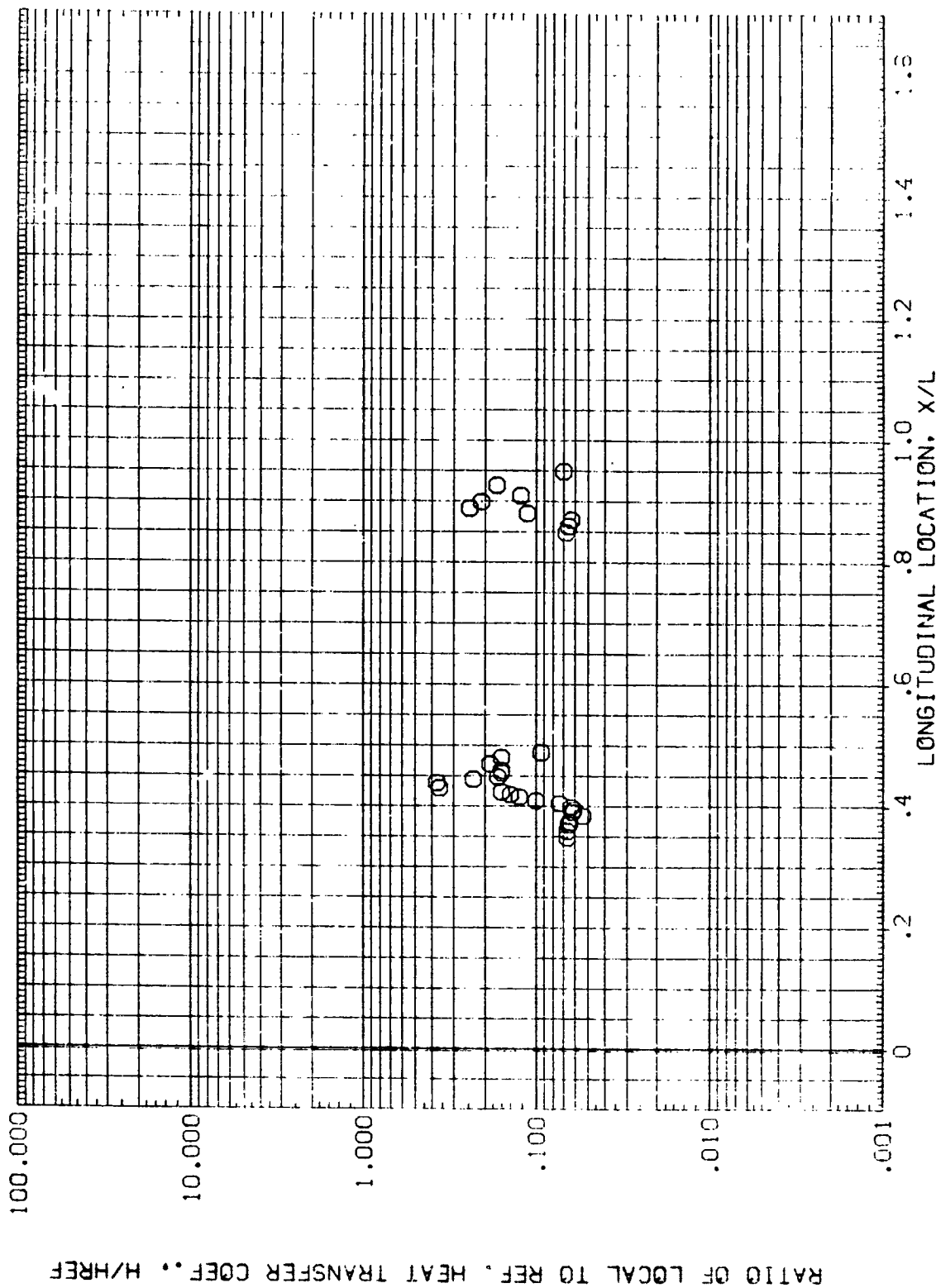


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HREF = .900 PHI = 168.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000

(RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

EXT TANK

EXT TANK

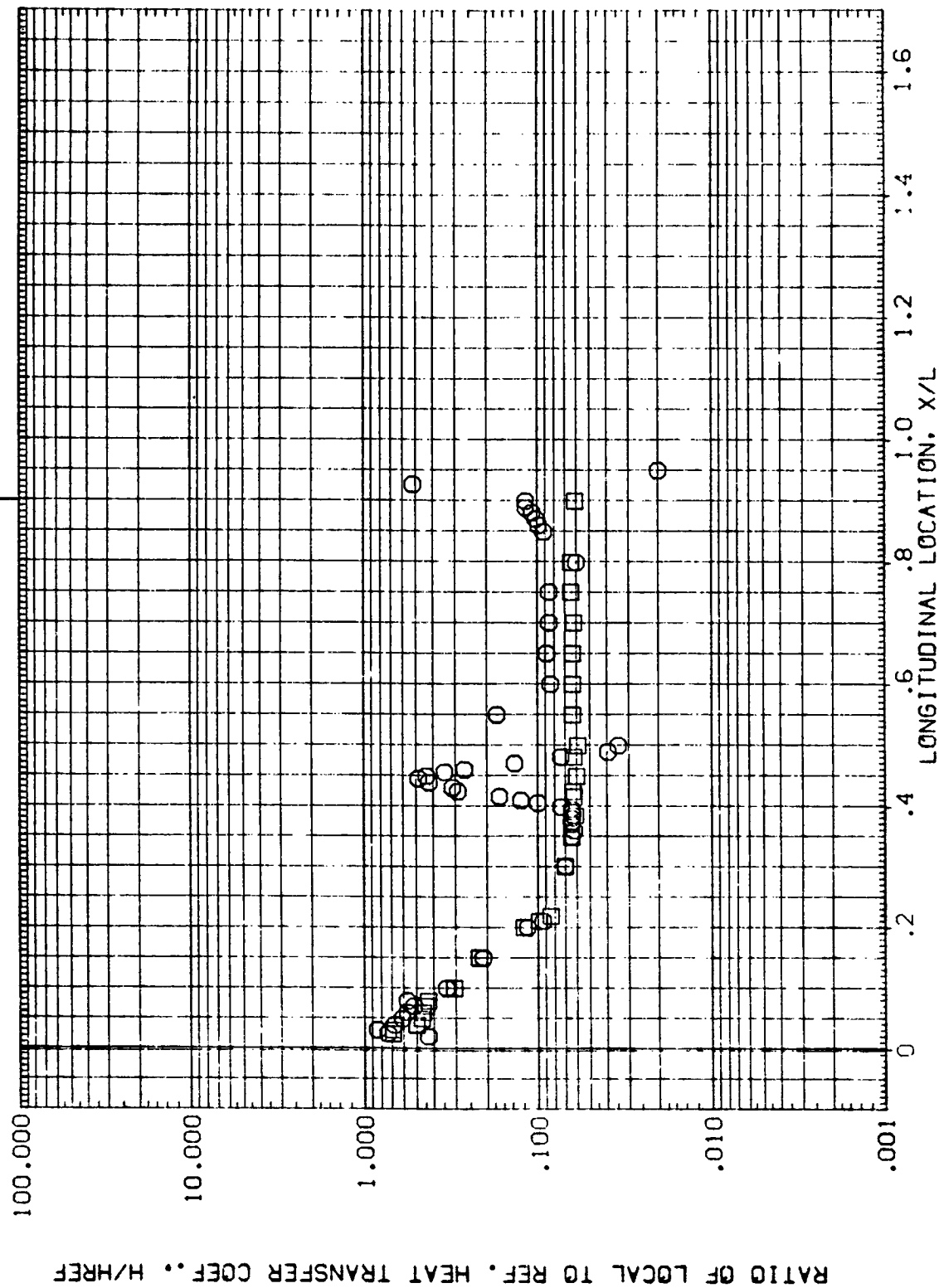


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HREF = .300 PHI = 130.600

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000  
 (RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

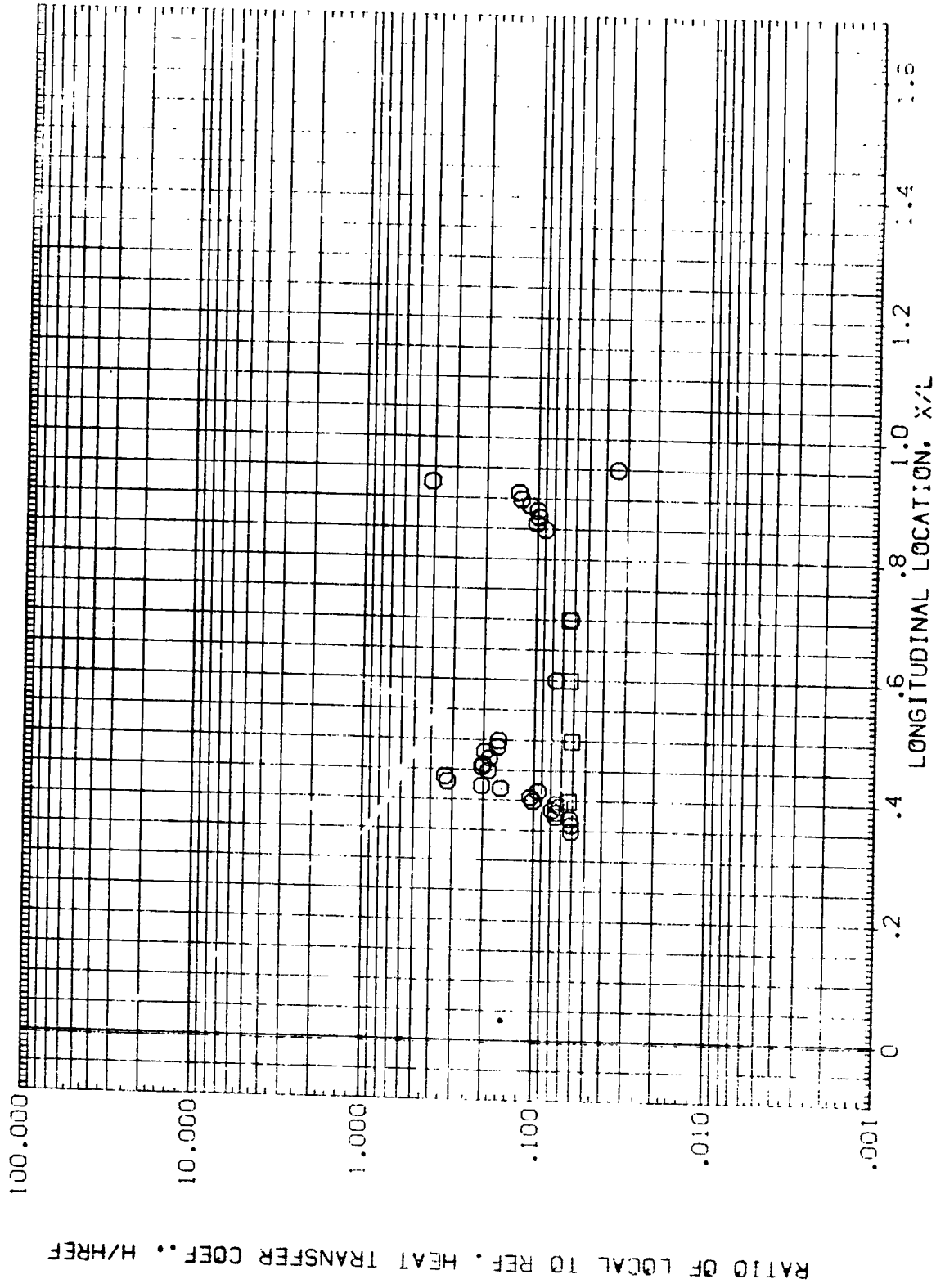



FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 191.250

DATA SET SYMBOL (RNBFI5)  CONFIGURATION DESCRIPTION  
 ARC3 5-211(1H48)OT /NIPPLE/P/TRIP  
 DATA NOT AVAILABLE

EXT TANK ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

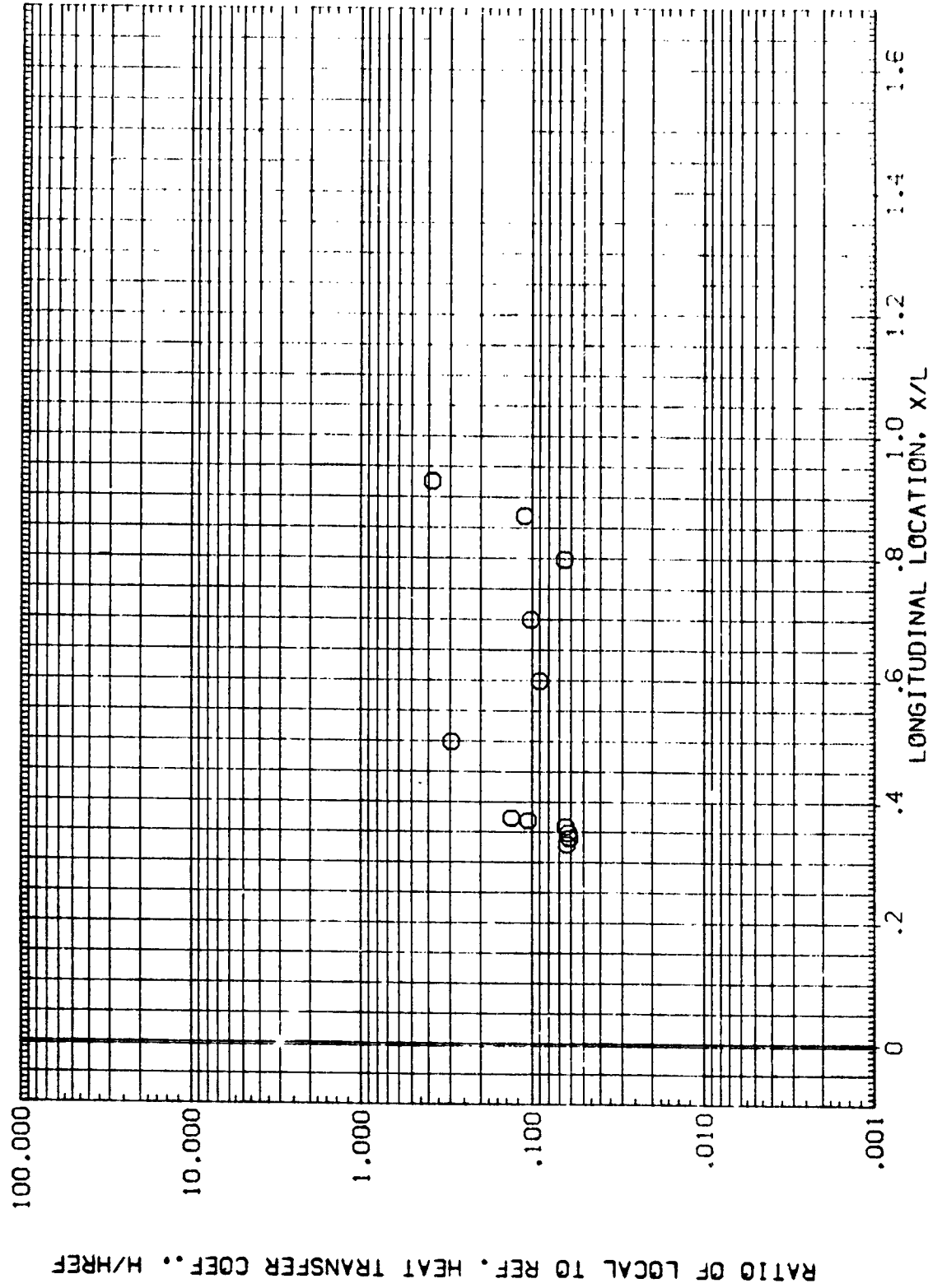


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 197.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNB15)    ARC3.5-211C148JOT /NIPPLE/P/TRIP  
 (RNB18)    DATA NOT AVAILABLE

EXT TANK    ALPHA    BETA    RN/L  
 -5.000    -5.000    .000    5.000  
 -5.000    .000    .000    5.000

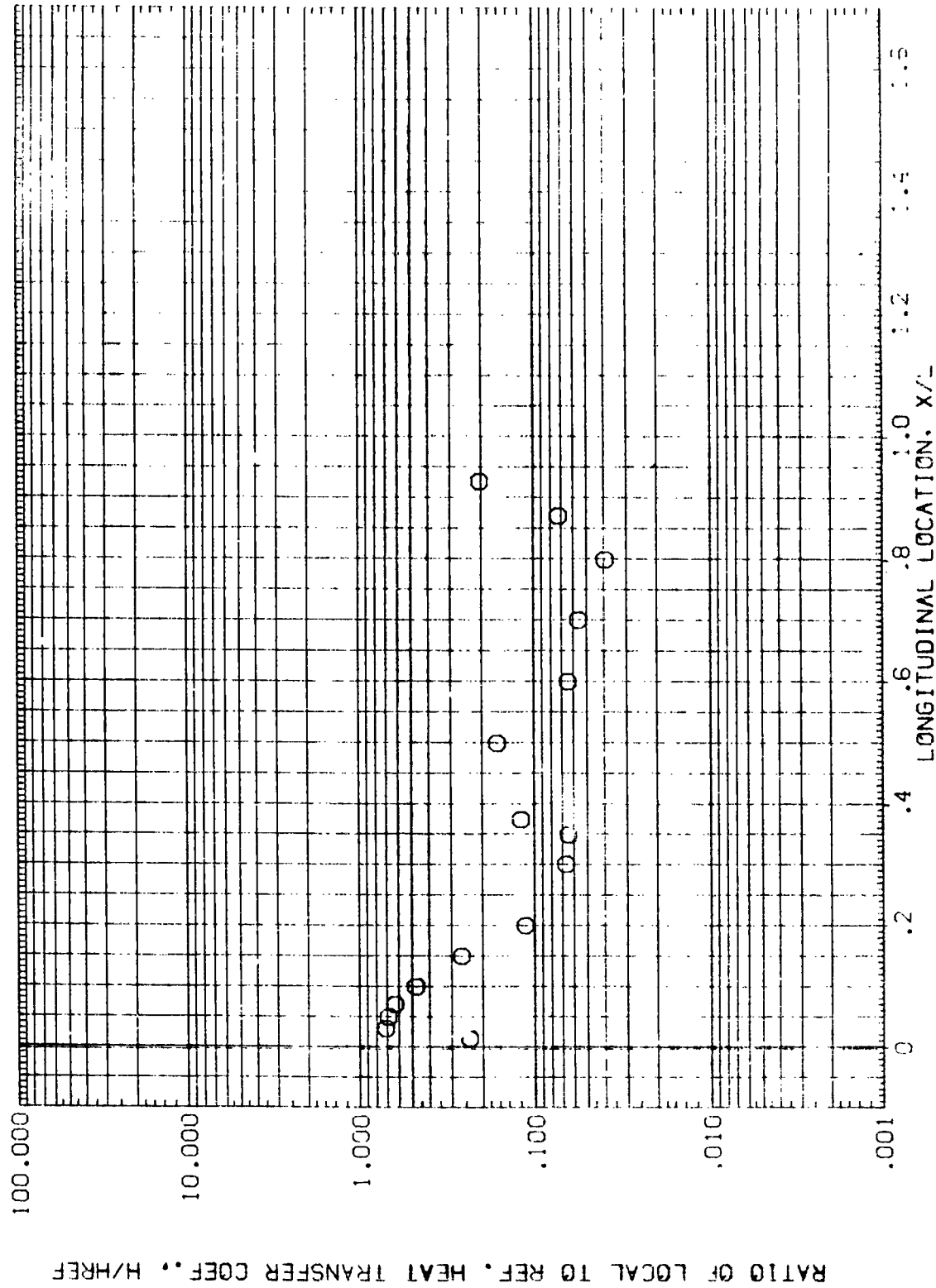


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    P41 = 209.800



DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RMBF15)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RMBF18)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK    EXT TANK  
 ALPHA    -5.000    -5.000  
 BETA    .000    .000  
 RN/L    5.000    5.000

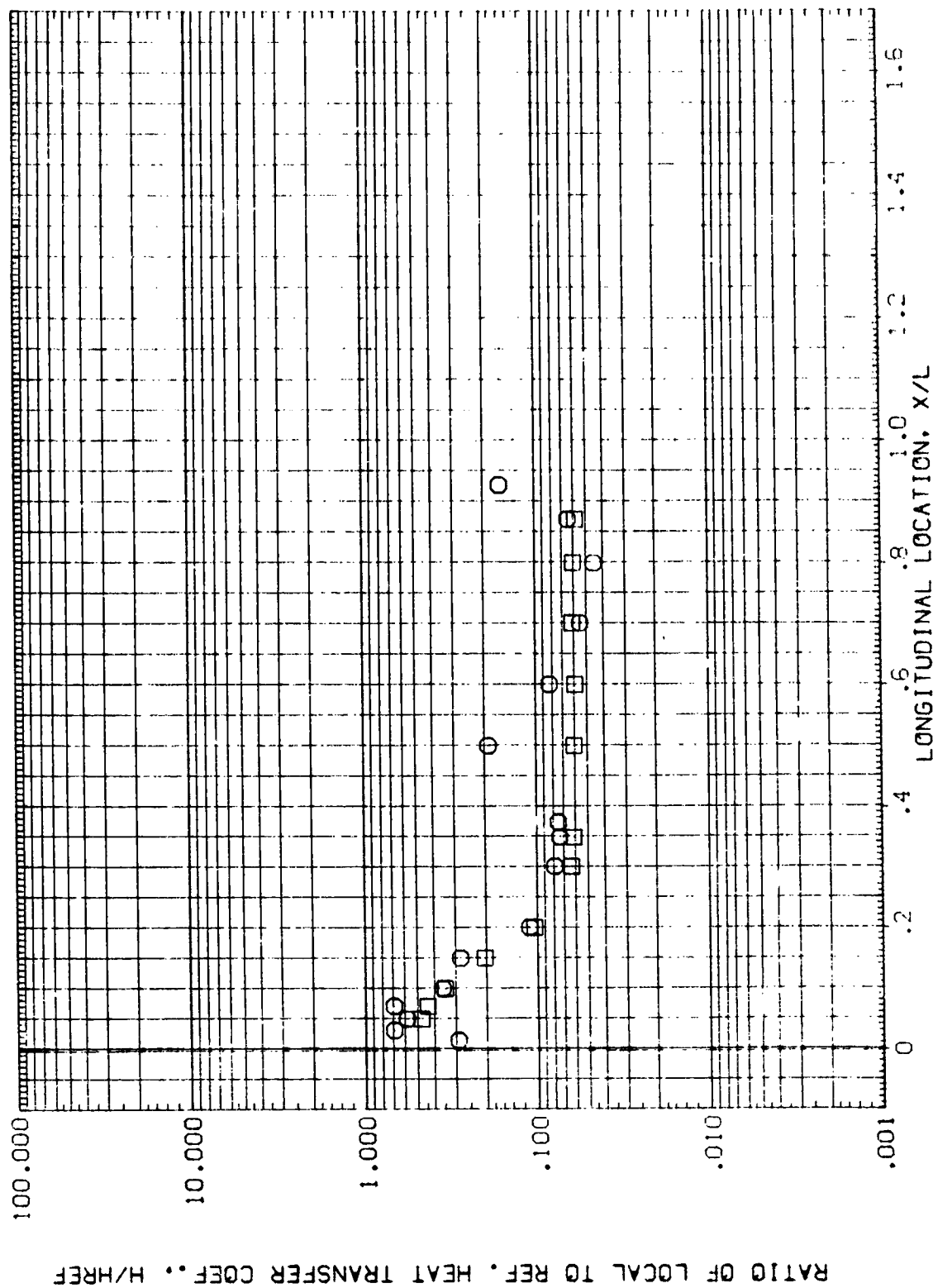


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 217.700

DATA SET SYMBOL LONGITUDINAL LOCATION DESCRIPTION  
(BNBF15) ○ IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA BETA RN/L  
-5.000 .000 5.000

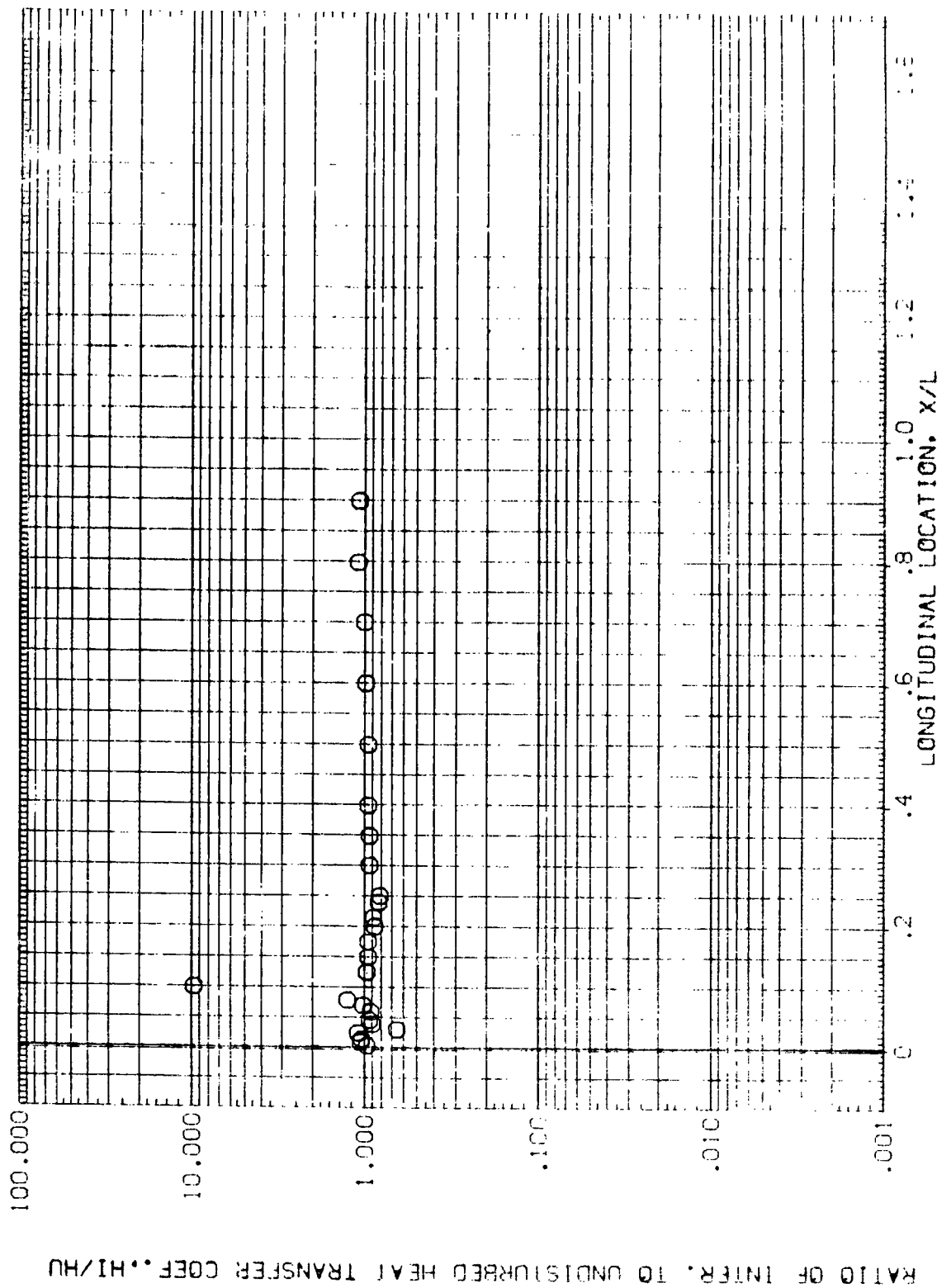


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (BNBF15)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

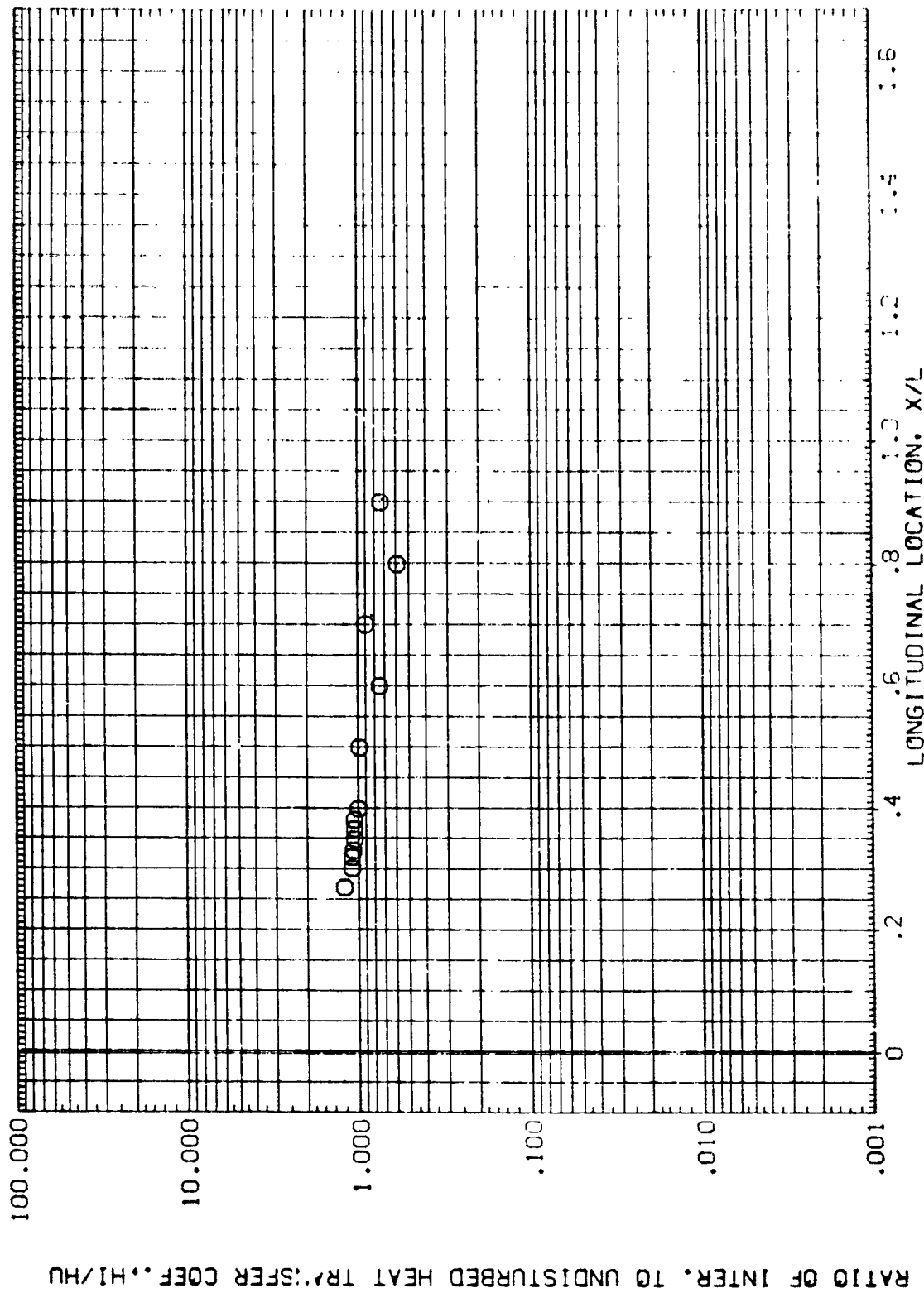


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 67.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA     $R^2/L$   
 (BNBF15)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

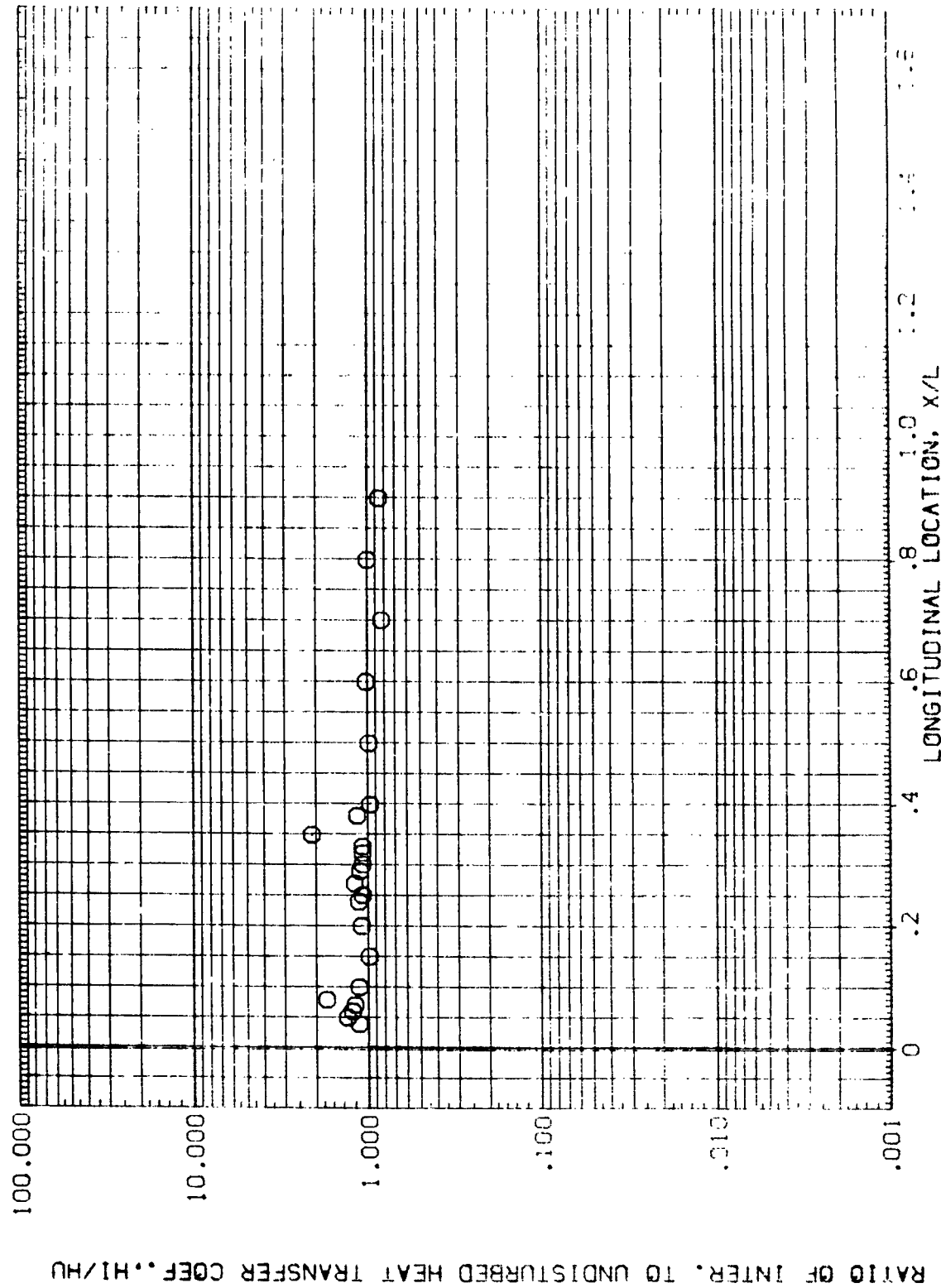


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 90.000    PAGE 190

DATA SET SYMBOL: 14-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA

ALPHA BETA RM/L  
-5.000 .000 5.000

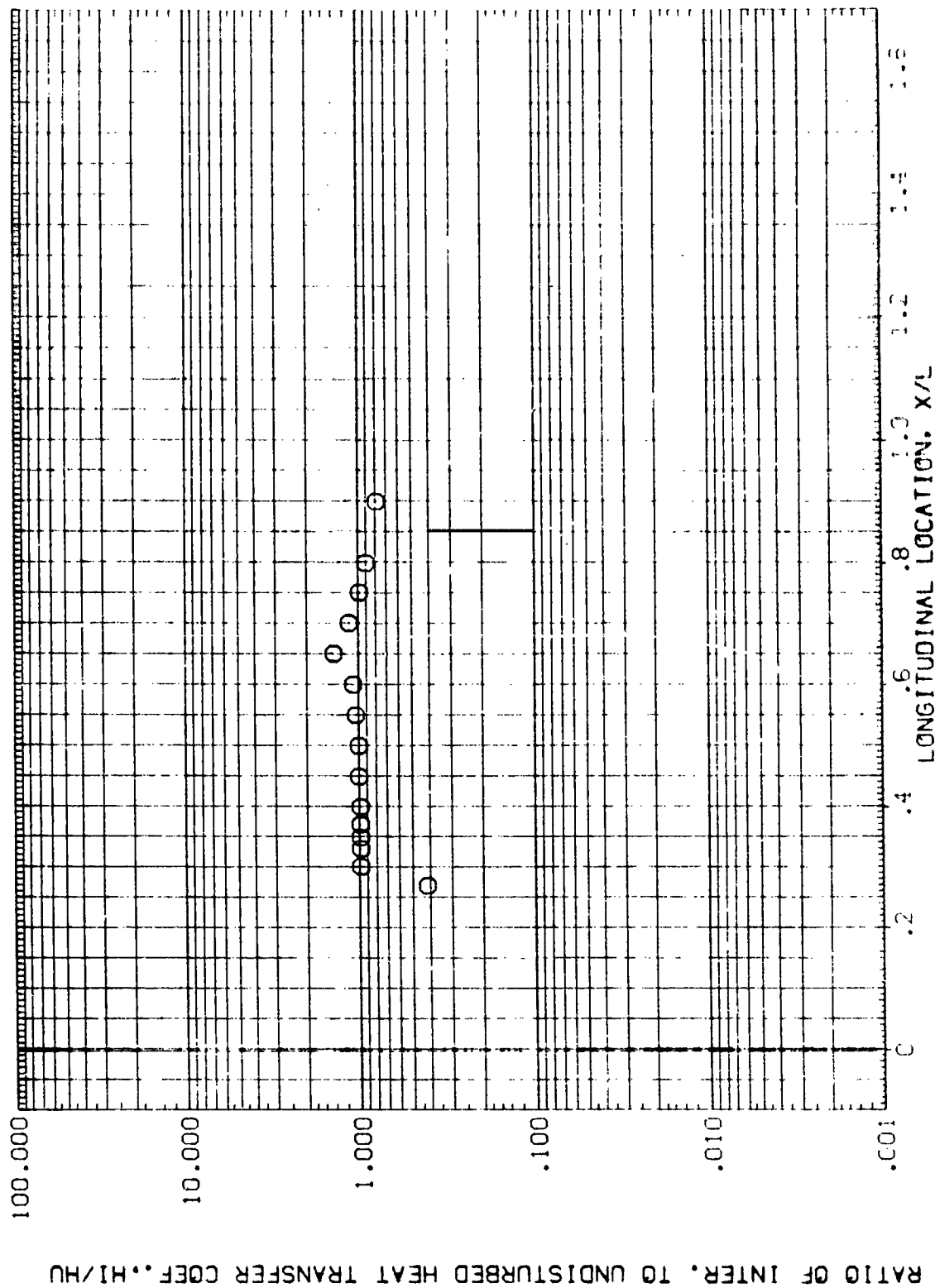


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HEIGHT = .000 PHI = 112.500

DATA SET SYMBOL (8NB15) ○ 1H-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA ALPHA -5.000 BETA .000 RM/L 5.000

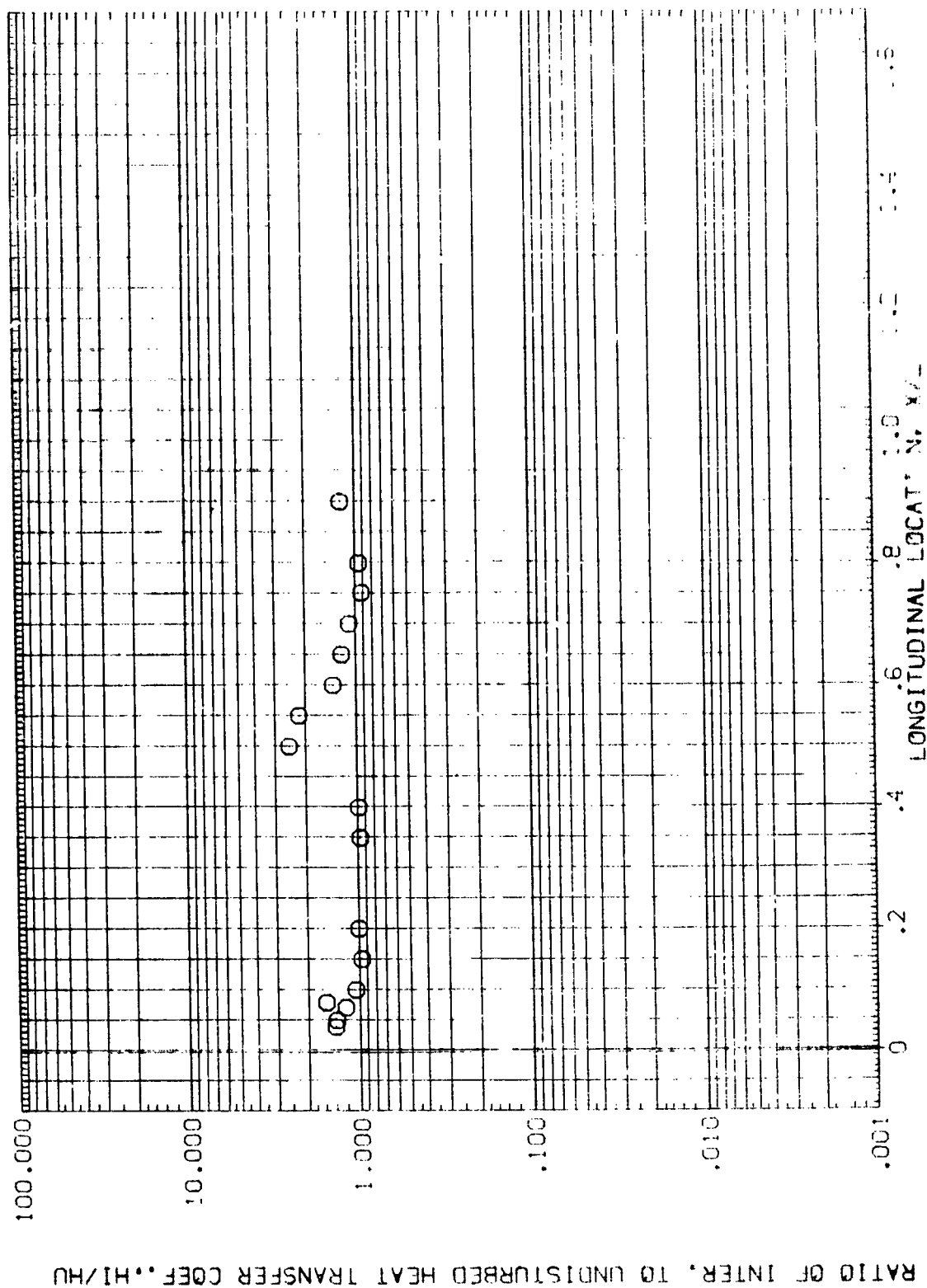


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA     $Re_{\infty}$   
 (BNBF15)    O    IH-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

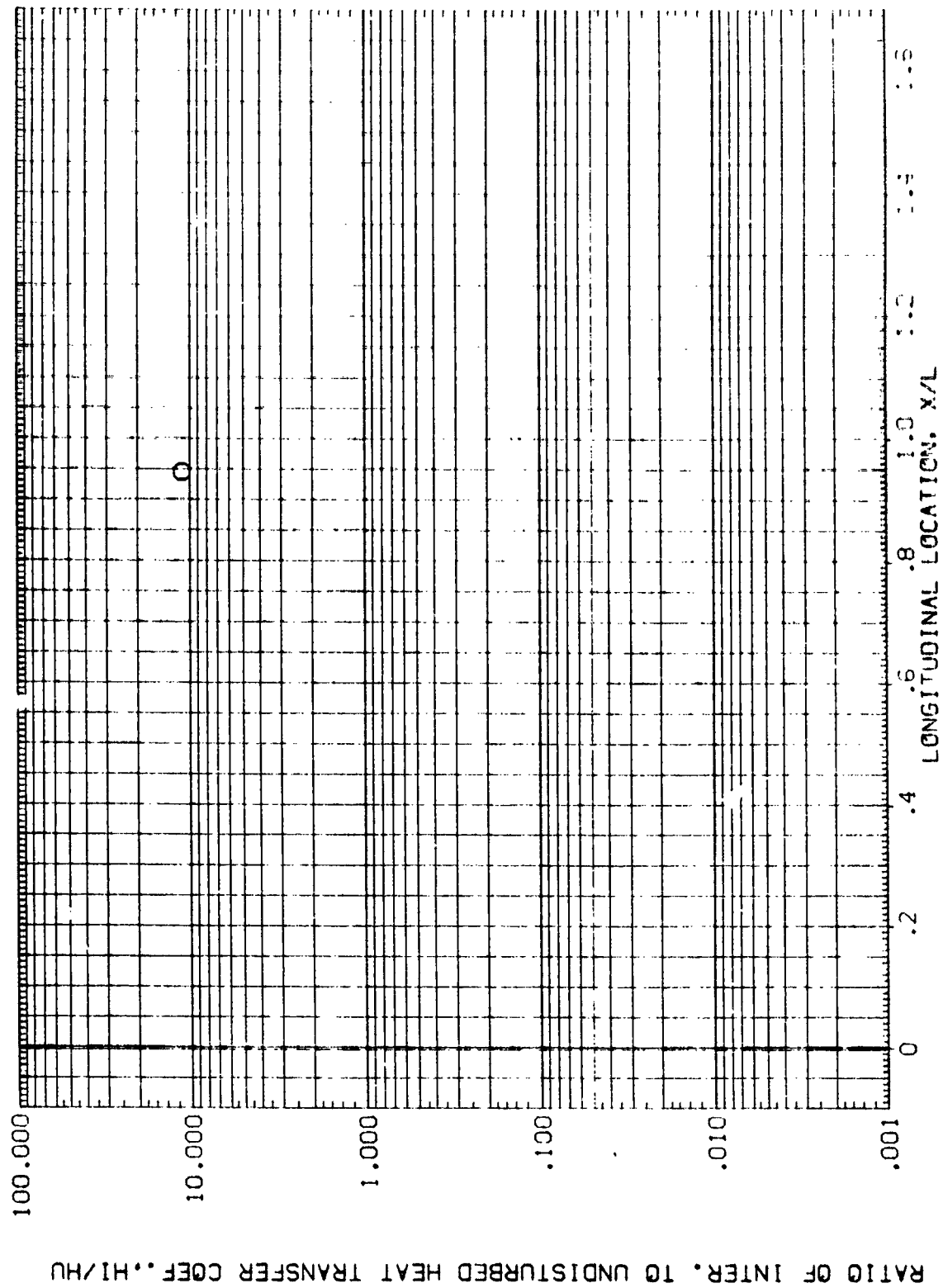


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 154.980

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RND  
 (BNBF15)    O    IH-48, AMES 3.5-211, N. N. ET INTERFERENCE DATA    -5.000    .000    5.000

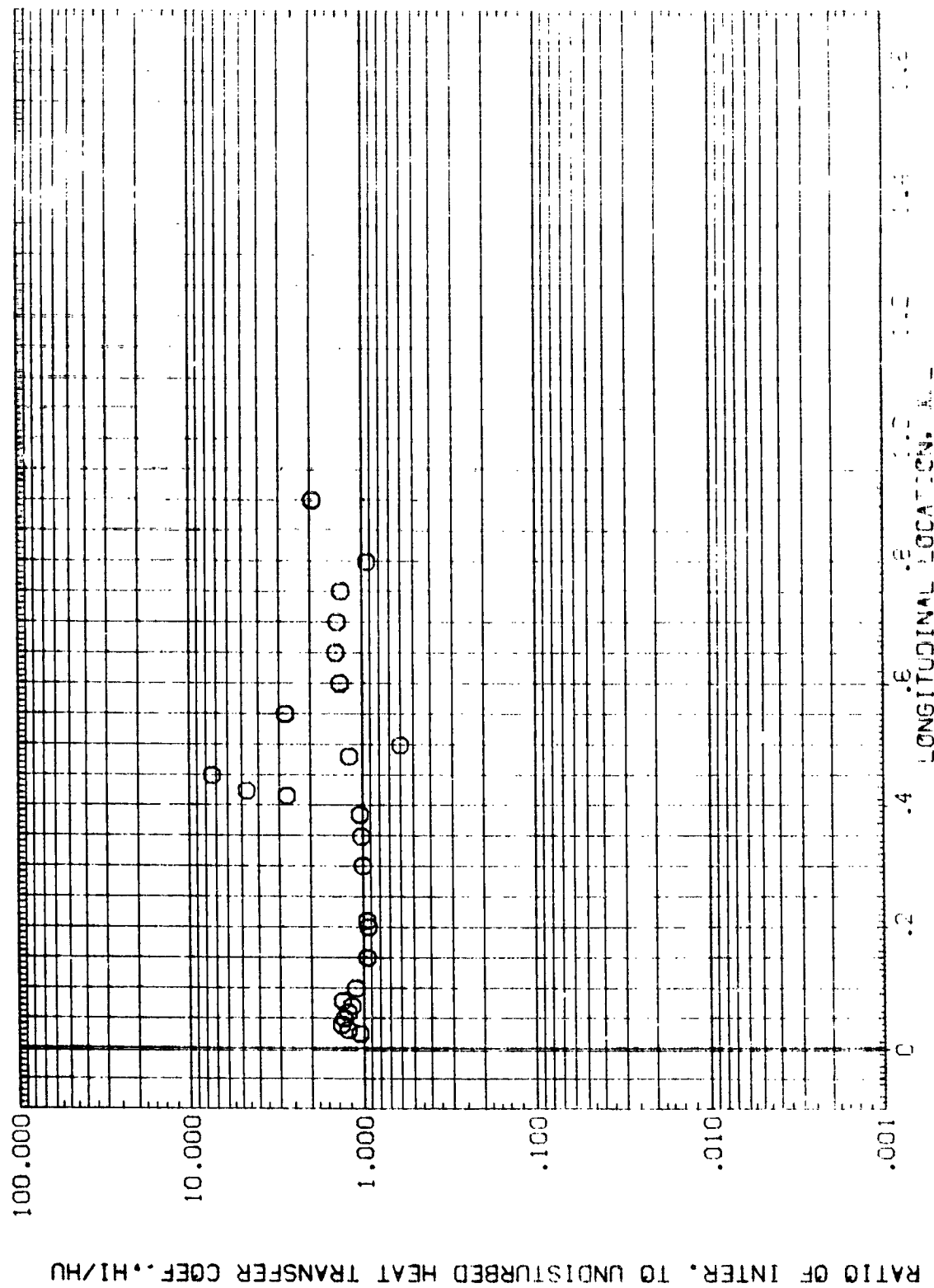


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL FLOW

MACH = 5.300    HAW/HT = .900    PHI = 190.000



DATA SET SYMBOL: (21.9F15) ○  
 CONFIGURATION DESCRIPTION: 1H-48. AMES 3.5-211. N. N. ET INTERFERENCE DATA  
 ALPHA: -5.000  
 BETA: .000  
 RM/L: 5.000

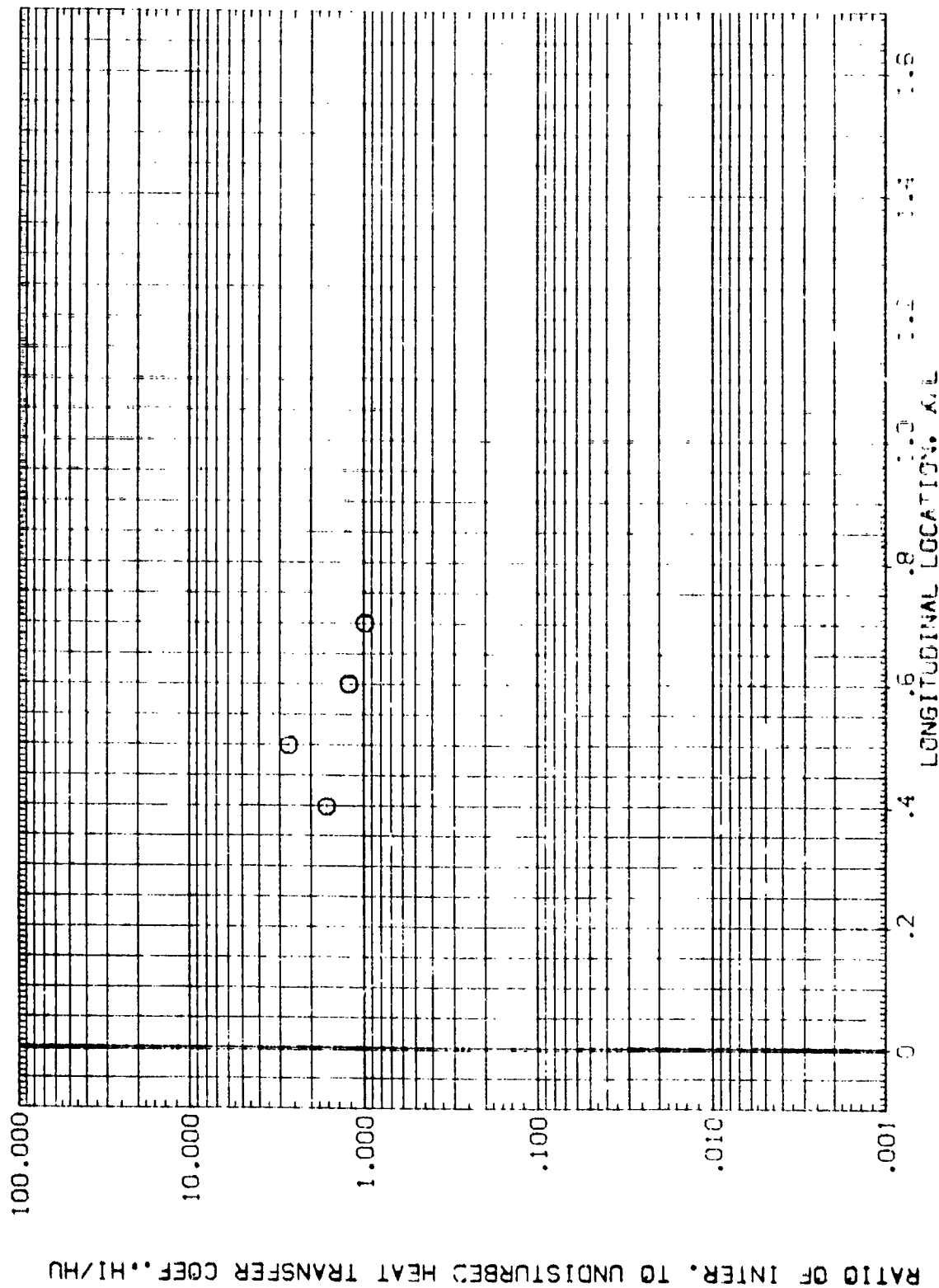


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAM/PT = .000 PHI = 191.250

DATA SET SYMBOL: 1H-48, AMES 3.5-211, N. N. E. INTERFERENCE DATA ALPHA: -5.000 BETA: .000 RN/L: 5.000

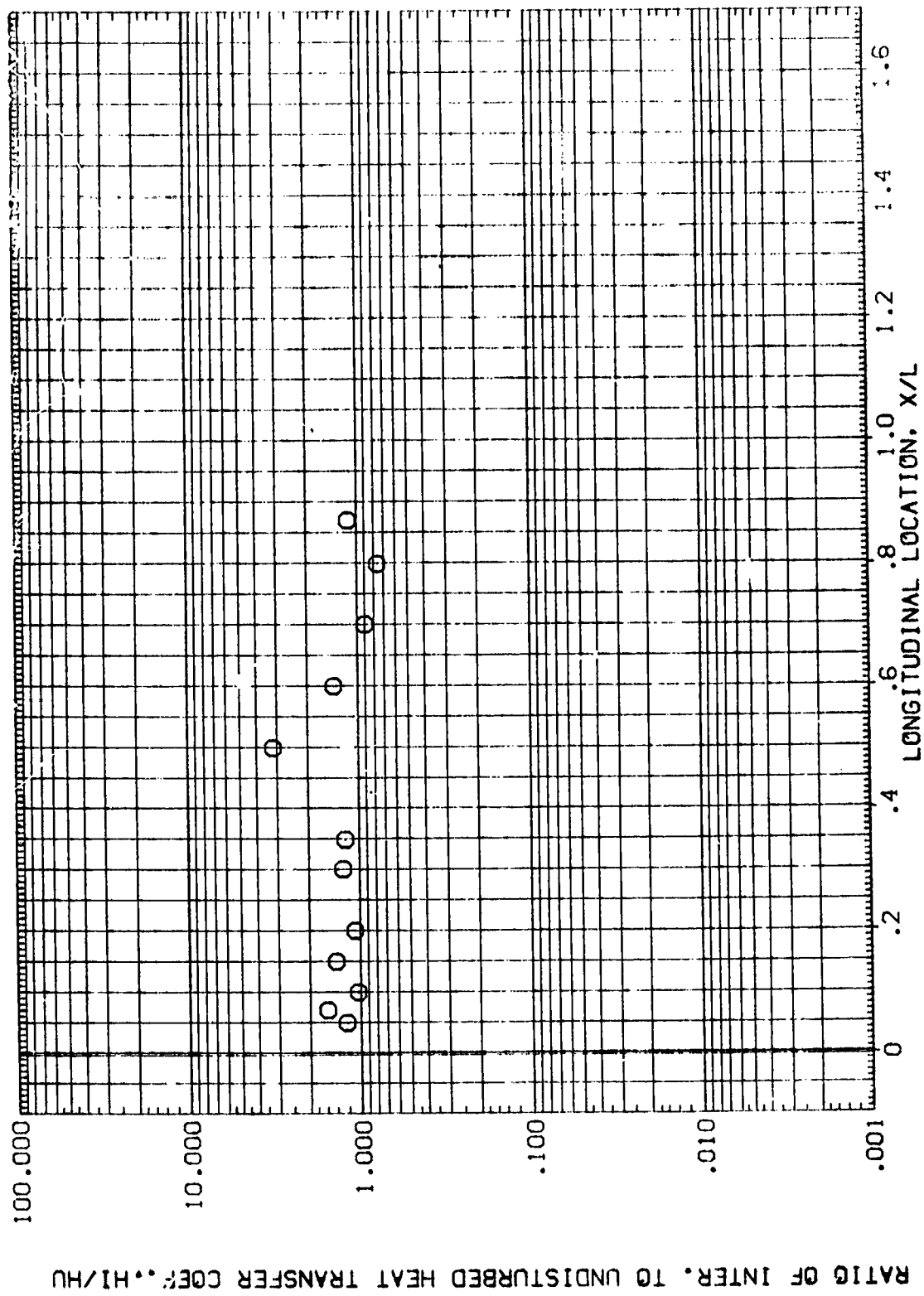
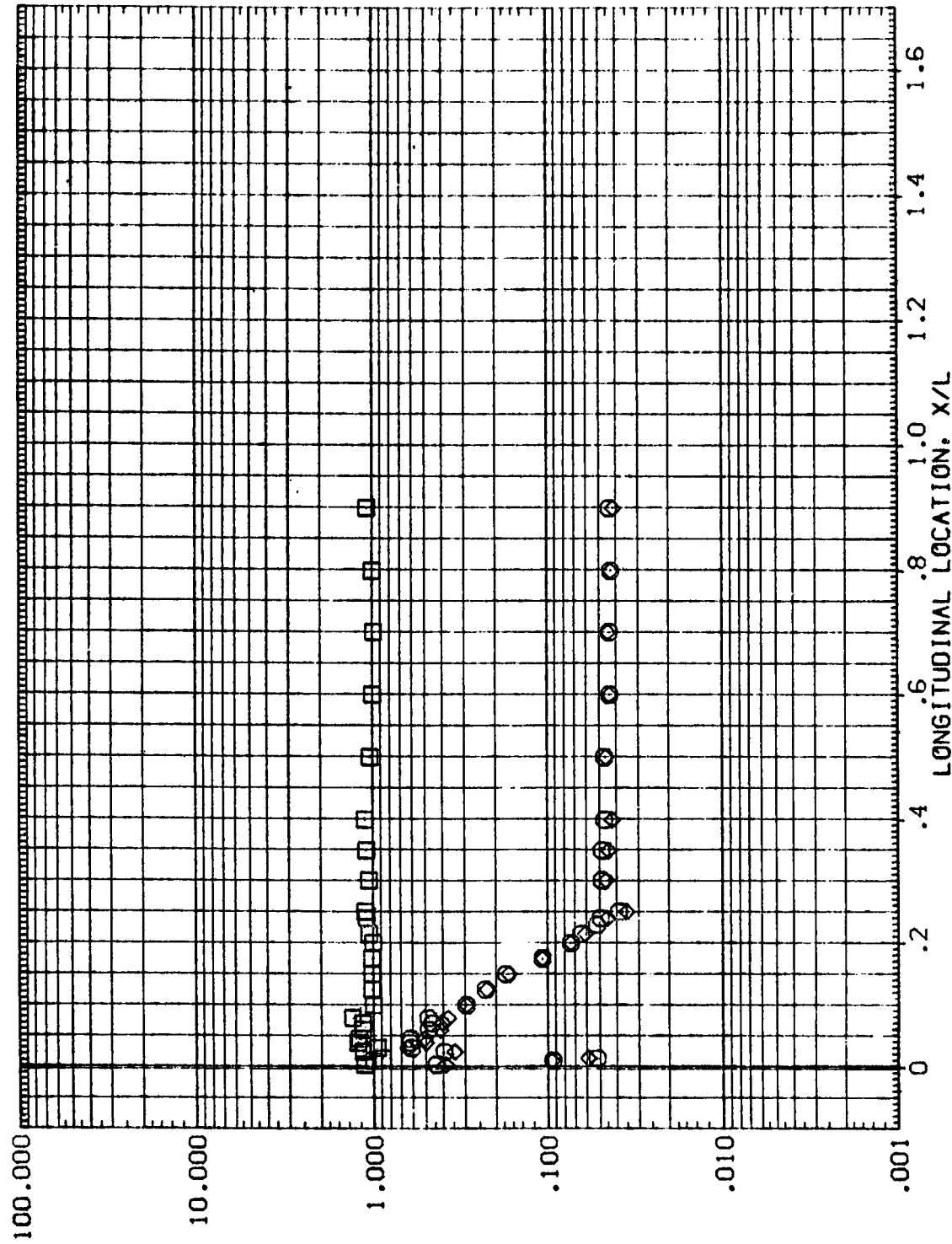


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB14)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	.000	.000	5.000
(CNB14)	IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT	.000	.000	5.000
(RNB17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000



HI/HU FOR CNBFX DATASETS OR H/HREF FOR RNBFX DATASETS

FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA S/LT SYMBOL CONFIGURATION DESCRIPTION  
 (RNB14) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (CNB14) DATA NOT AVAILABLE  
 (RNB17) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

EXT TANK

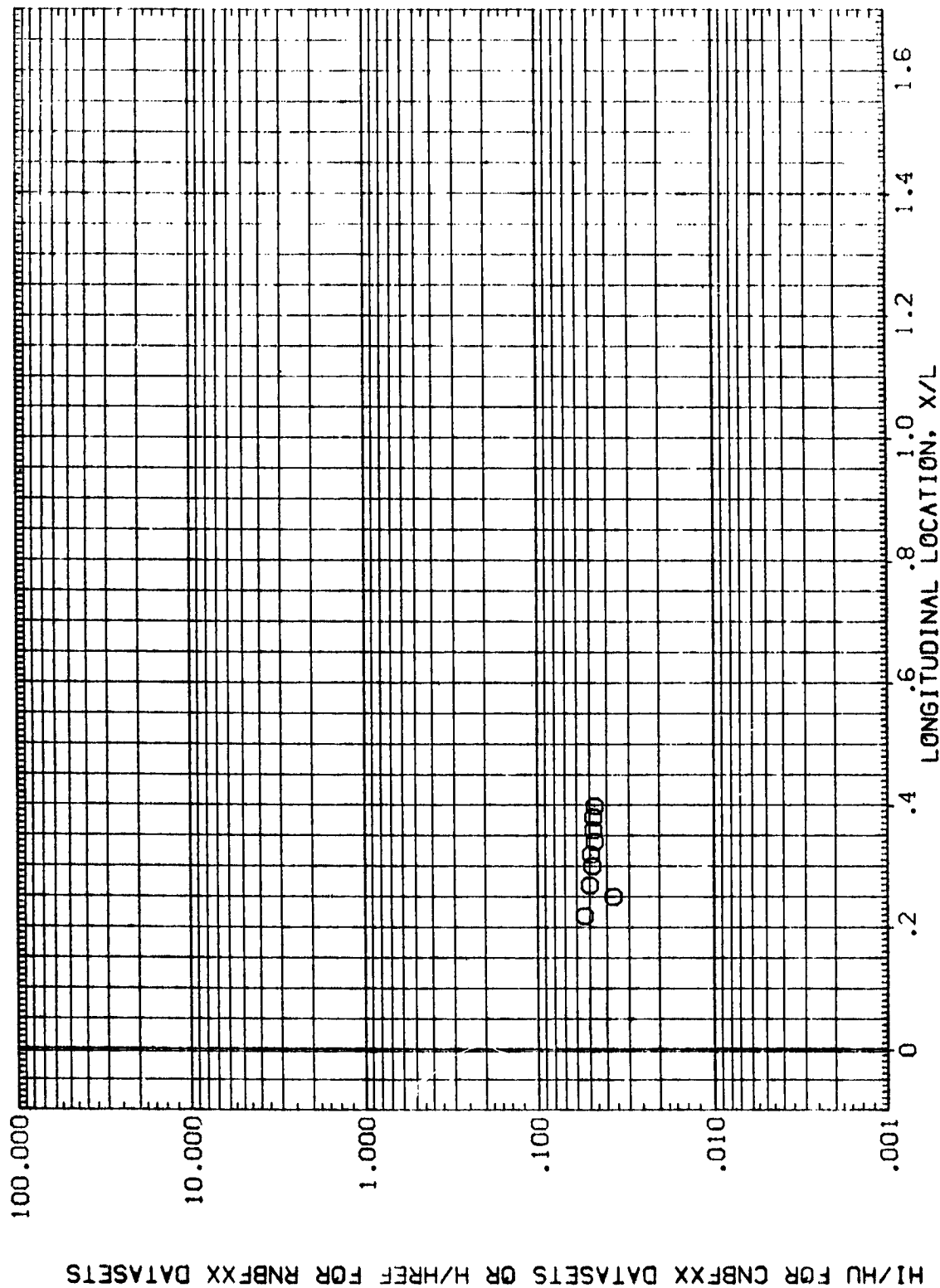


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL  
(RNBFI4)  
(CNBFI4)  
(RNBFI7)

CONFIGURATION DESCRIPTION

ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
IH-48 (H/HU LABELED H/HREF) ET INTERFERENCE DAT  
ARC3.5-211(IH48)ET /NIPPLE/CLEAN

ALPHA BETA RN/L  
.000 .000 5.000  
.000 .000 5.000  
.000 .000 5.000

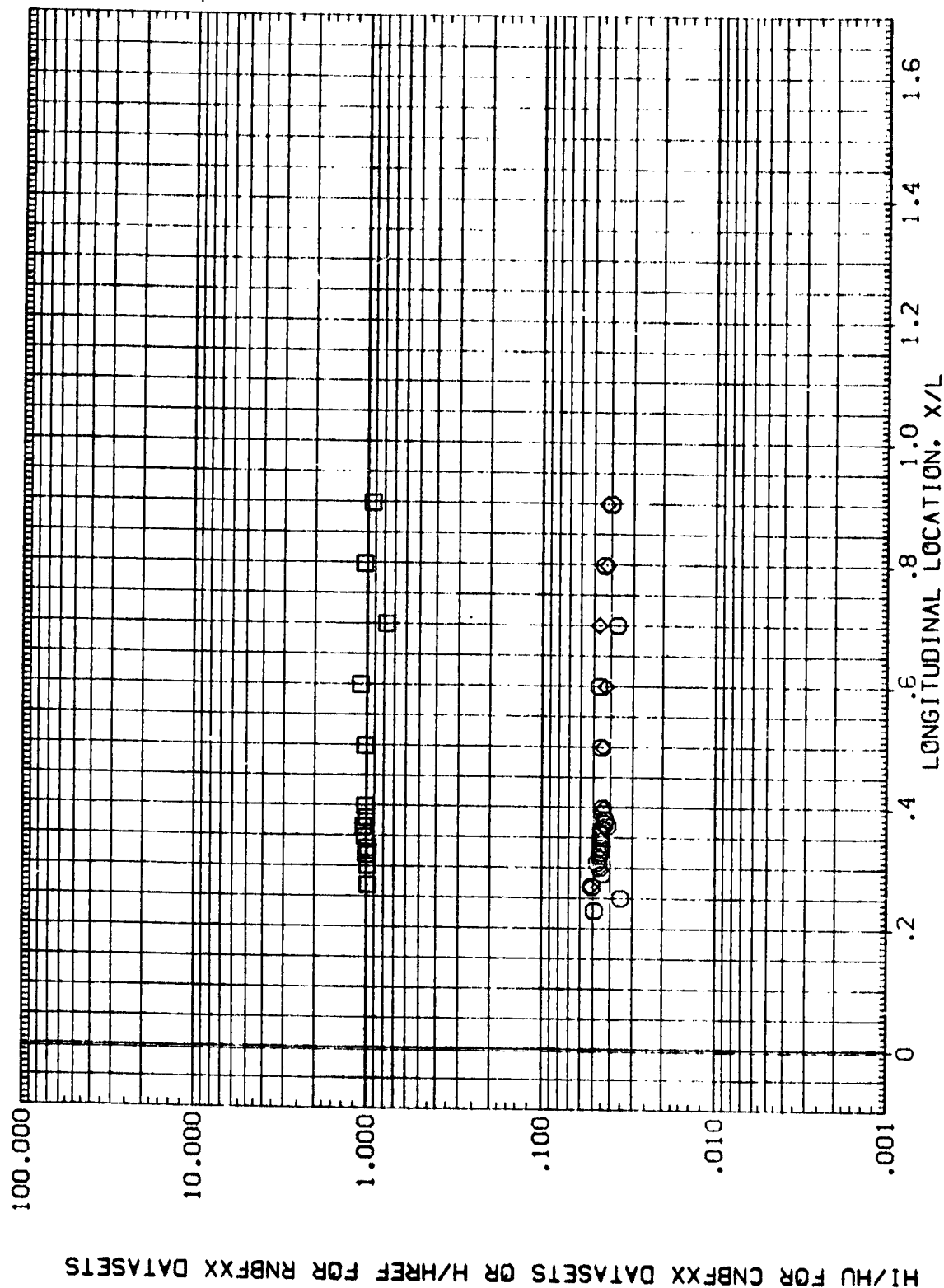


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFI4)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (CNBFI4)    DATA NOT AVAILABLE  
 (RNBFI7)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

EXT TANK

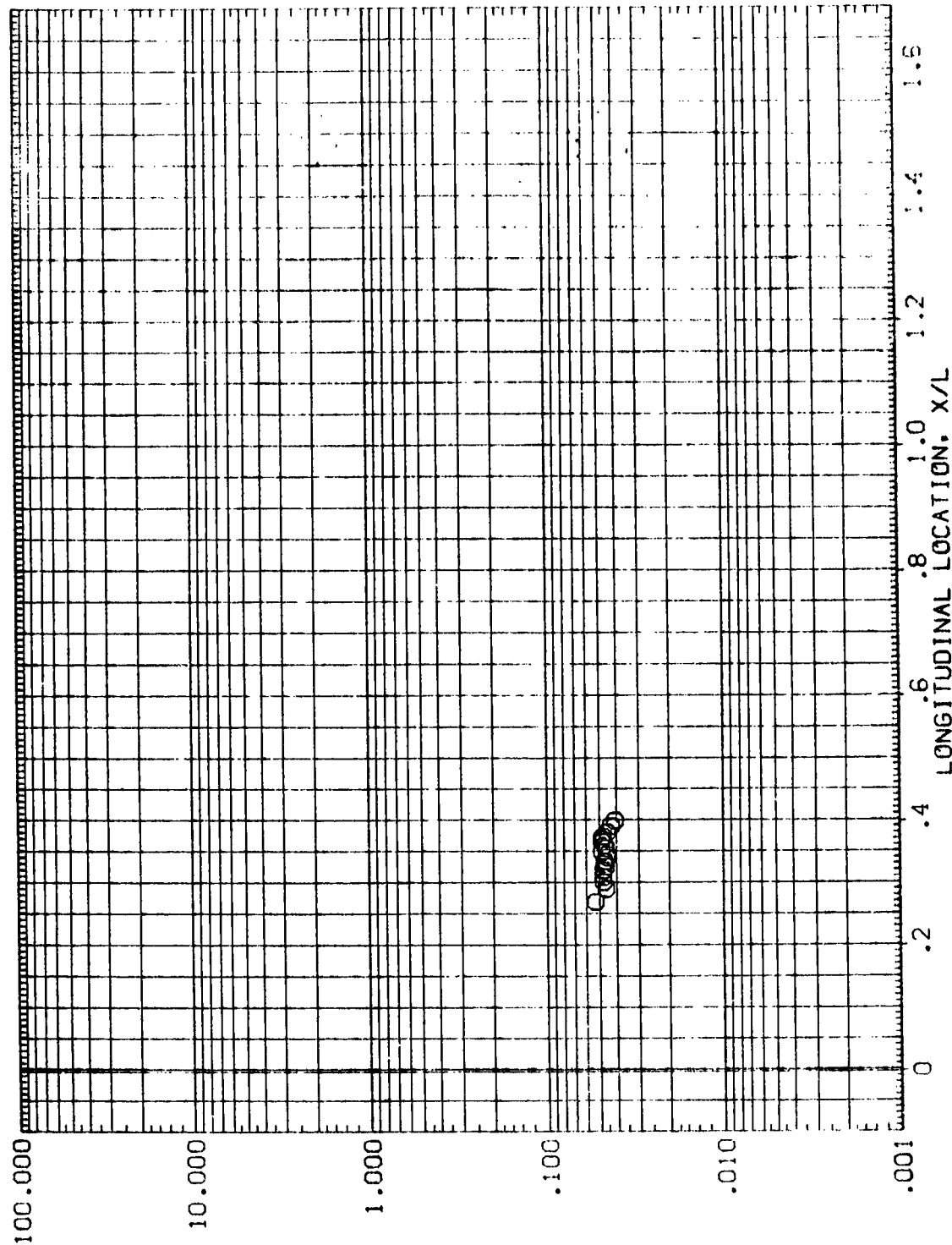


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 78.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB14)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      .000      .000      5.000

(CNB14)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      5.000

(RNB17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

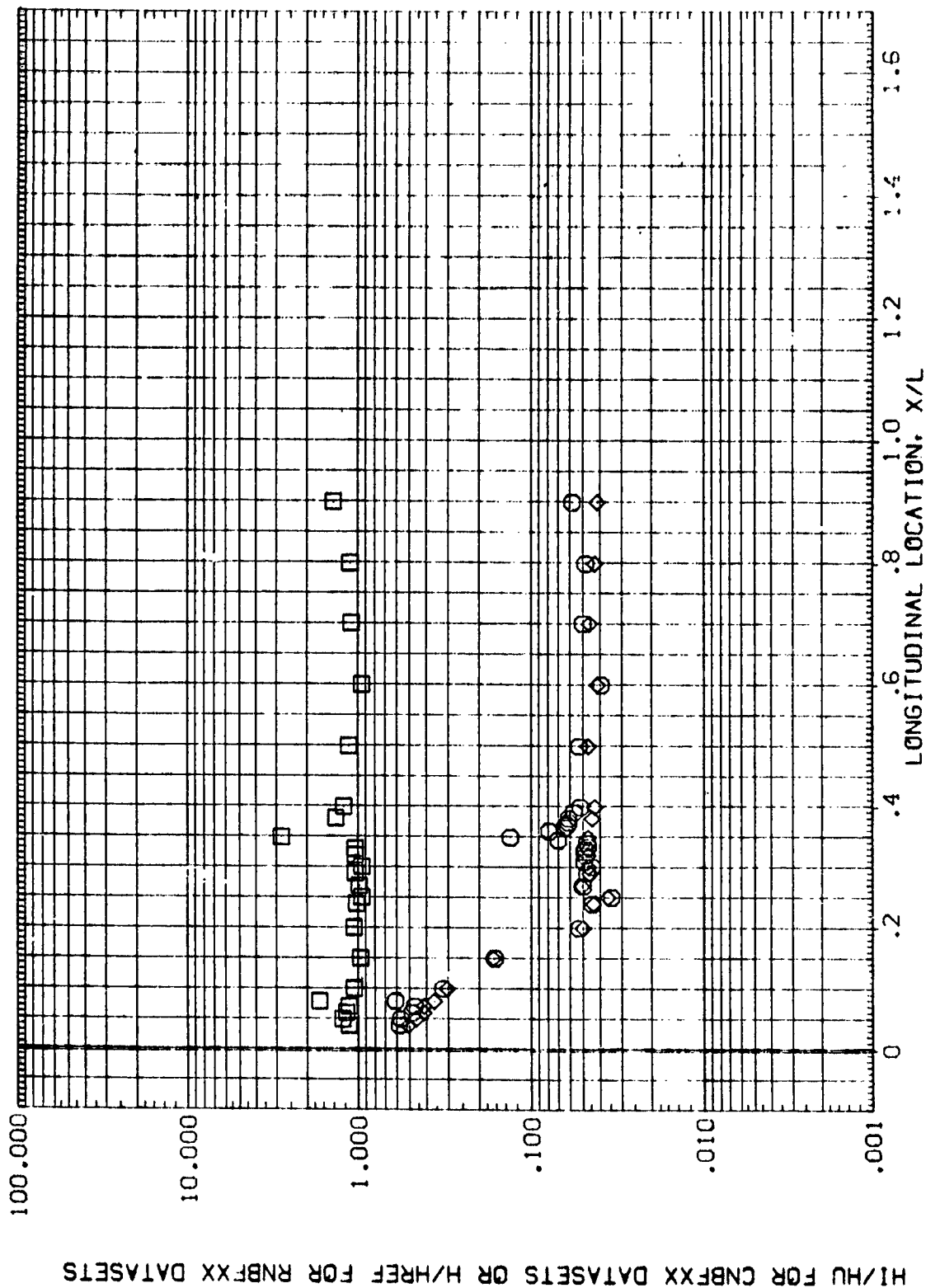


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RM/L

(RNBFL4)      ARC3.5-211(IH48)GT /NIPPLE/P/TRIP      .000      .000      5.000

(CRBFL4)      IH-48 CH/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      5.000

(RNBFL7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

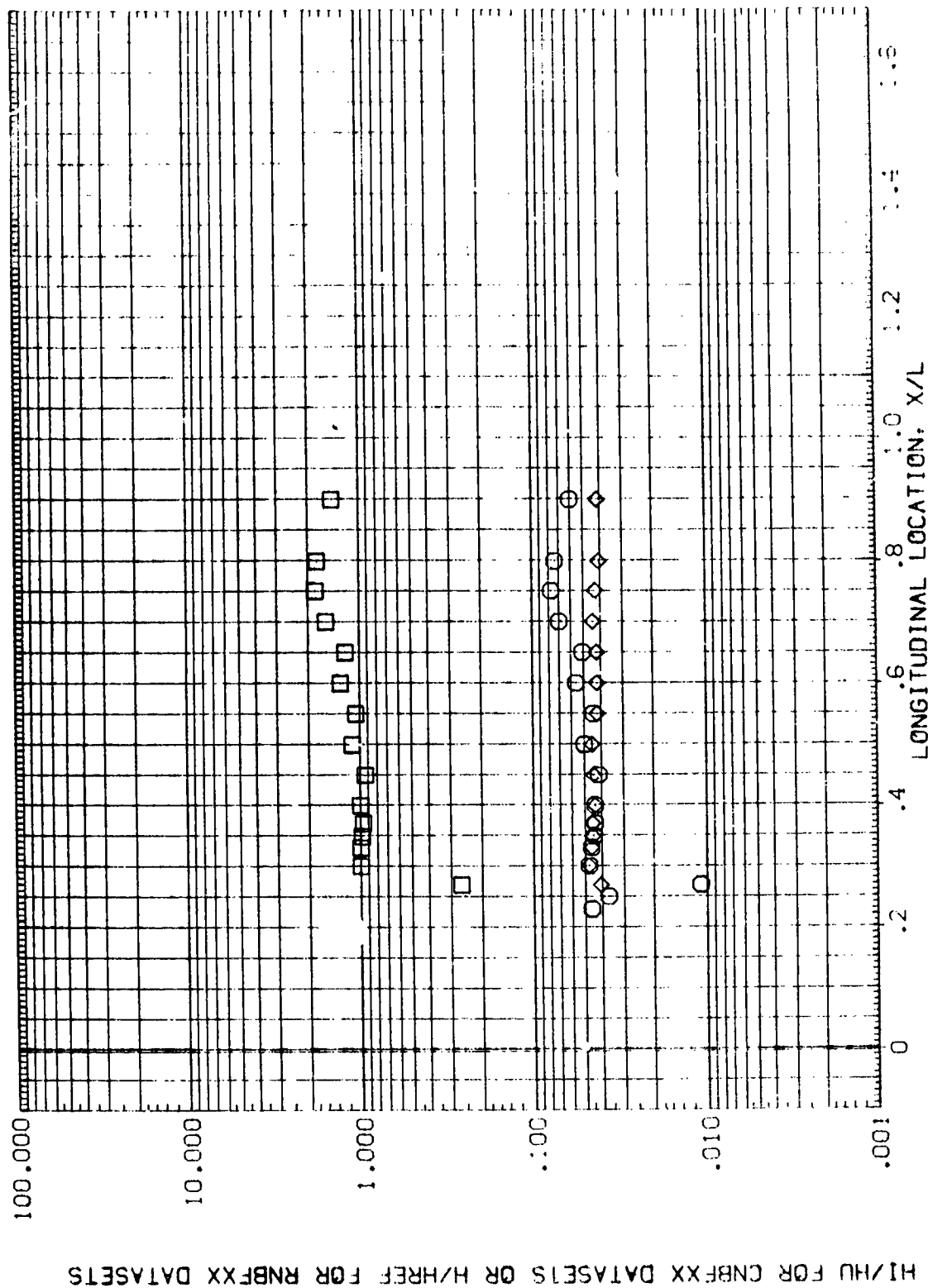


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 112.500      PAGE 202



DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNF14)      ARC3-5-211(IH48)OT /NIPPLE/P/TRIP  
 (CNF14)      DATA NOT AVAILABLE  
 (PNF17)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

EXT TANK

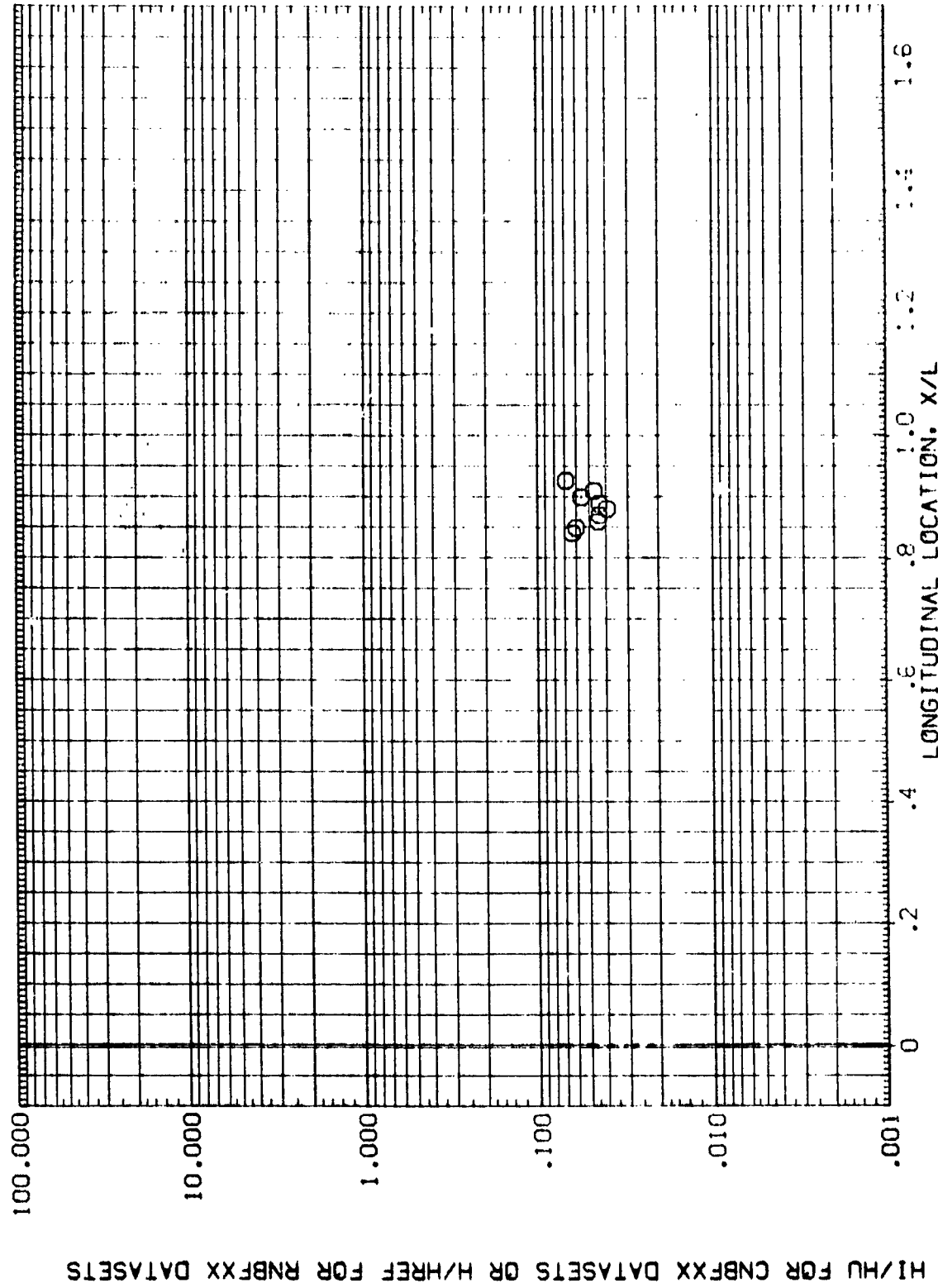


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI4) ARC3.5-211C(H48)OT /NIPPLE/P/TRIP  
 (CHSFI4) DATA NOT AVAILABLE  
 (RNBFI7) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

EXT TANK

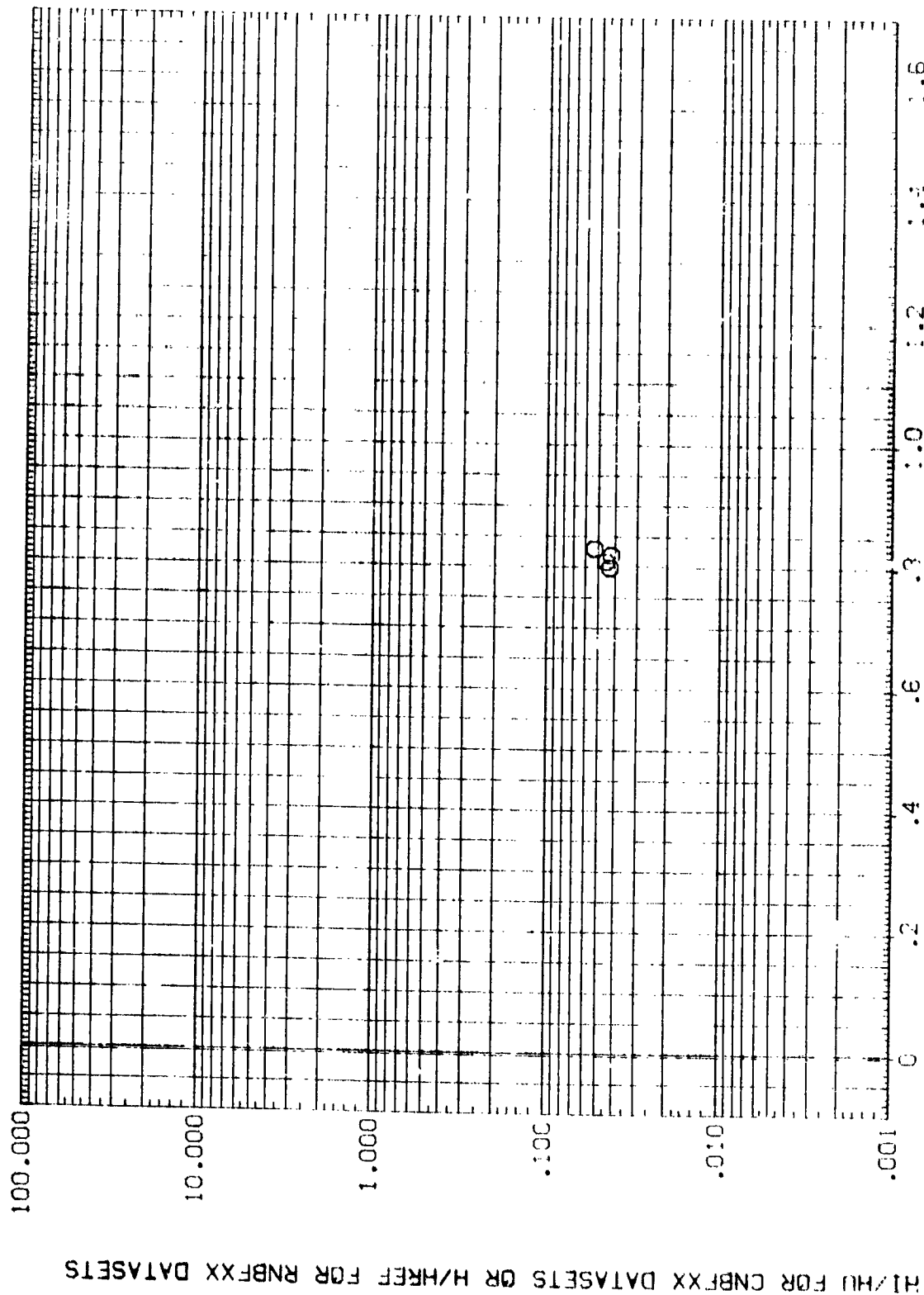


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HI = .900 PHI = 129.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	INTERFERENCE DAT	EXT TANK	ALPHA	BETA	RN/L
(RMBF14)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP				.000	.000	5.000
(CMBF14)	IH-48 (HI/HU LABELED H/HREF)				.000	.000	5.000
(RMBF17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN				.000	.000	5.000

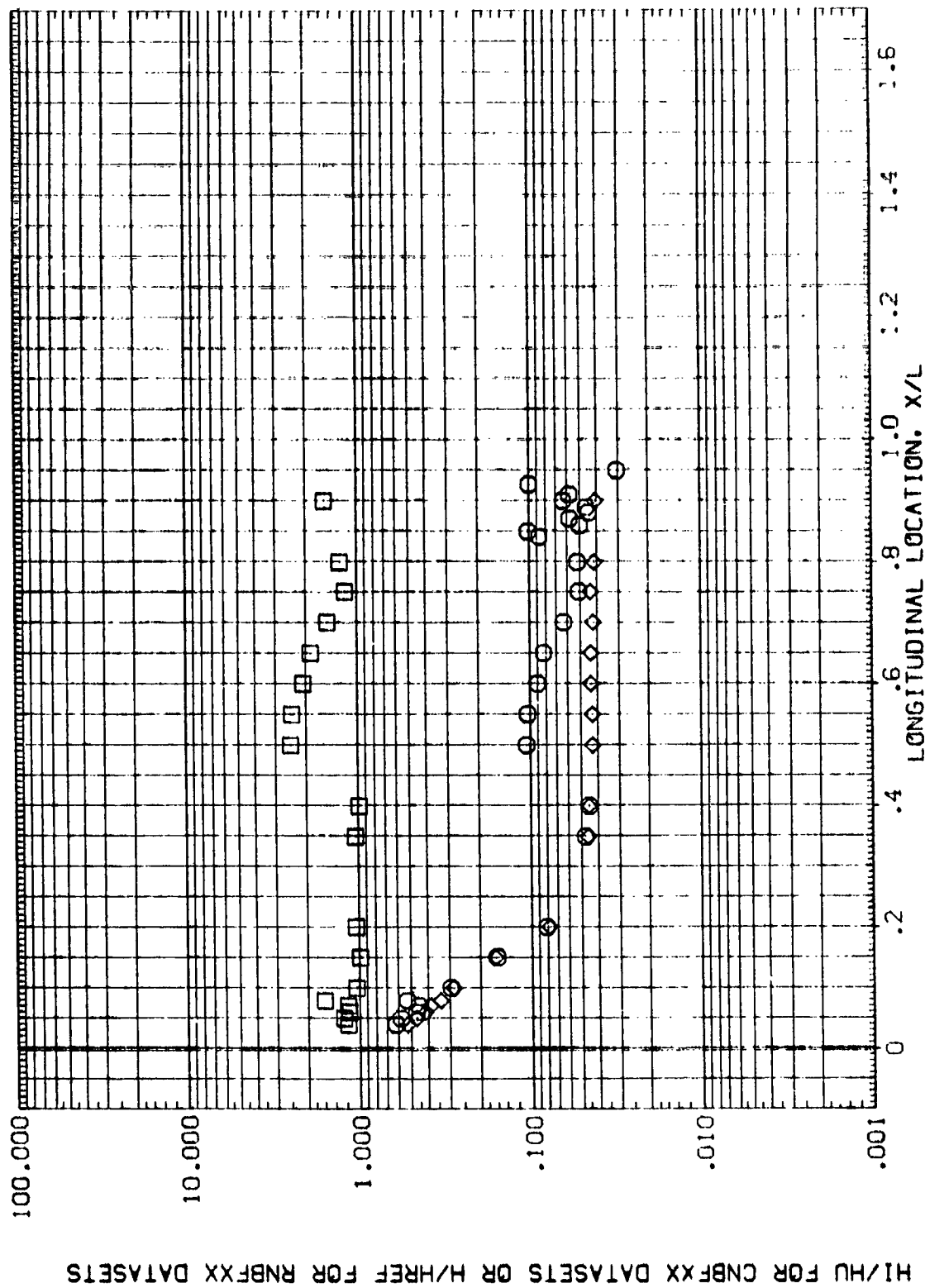


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .300 PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNB14)    ARC3-5-211(IH48)OT /NIPPLE/P/TRIP  
 (CNB14)    DATA NOT AVAILABLE  
 (RNB17)    DATA NOT AVAILABLE

EXT TANK    ALPHA    BETA    RV/L  
 .000    .000    .000    5.000  
 .000    .000    .000    5.000  
 .000    .000    .000    5.000

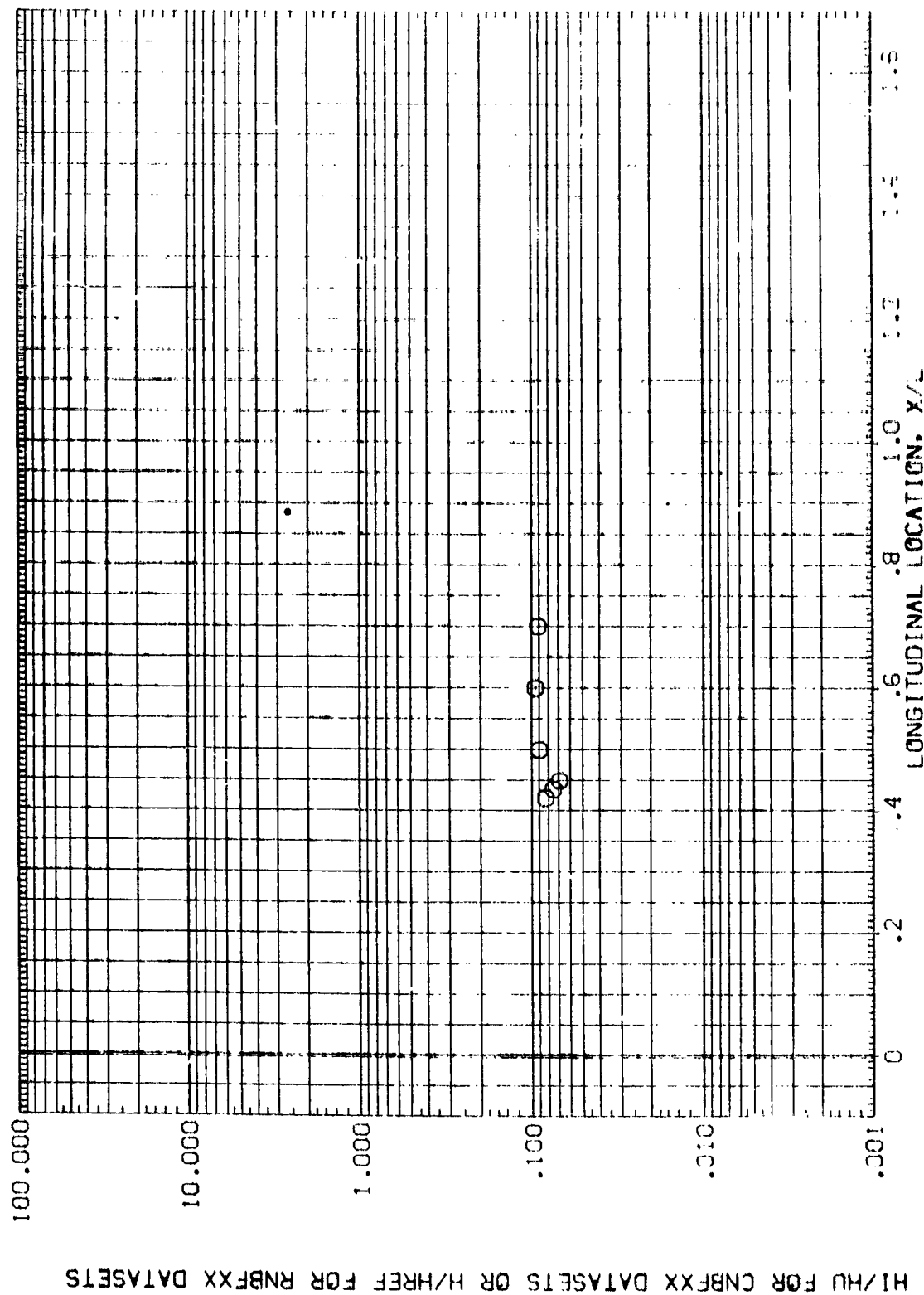


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 142.300

DATA SET SYMBOL  
(RNBFI 4)  
(CNBFI 4)  
(RNBFI 7)

CONFIGURATION DESCRIPTION

ARC3-5-211(1H48)OT /NIPPLE/P/TRIP  
IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAY  
ARC3-5-211(1H48)ET /NIPPLE/CLEAN

EXT TANK  
EXT TANK

ALPHA .000  
.033  
.000

BETA .000  
.000  
.000

RM/L 5.000  
5.000  
5.000

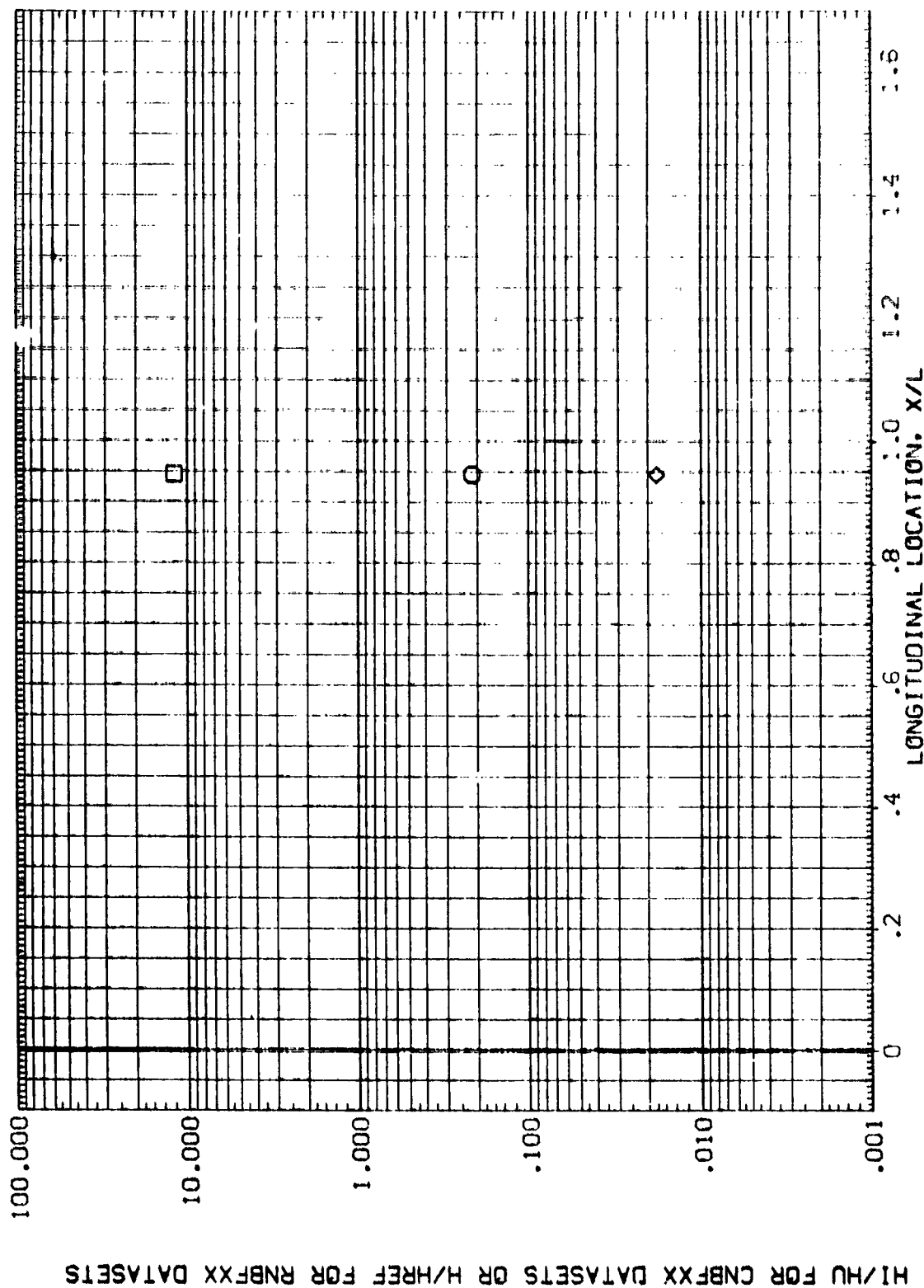


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.383

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFI4)    ARC3-5-211C(IH48JOT /NIPPLE/P/TRIP  
 (CAGFI4)    DATA NOT AVAILABLE  
 (RNBFI7)    DATA NOT AVAILABLE

ALPHA    BETA    RV/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

EXT TANK

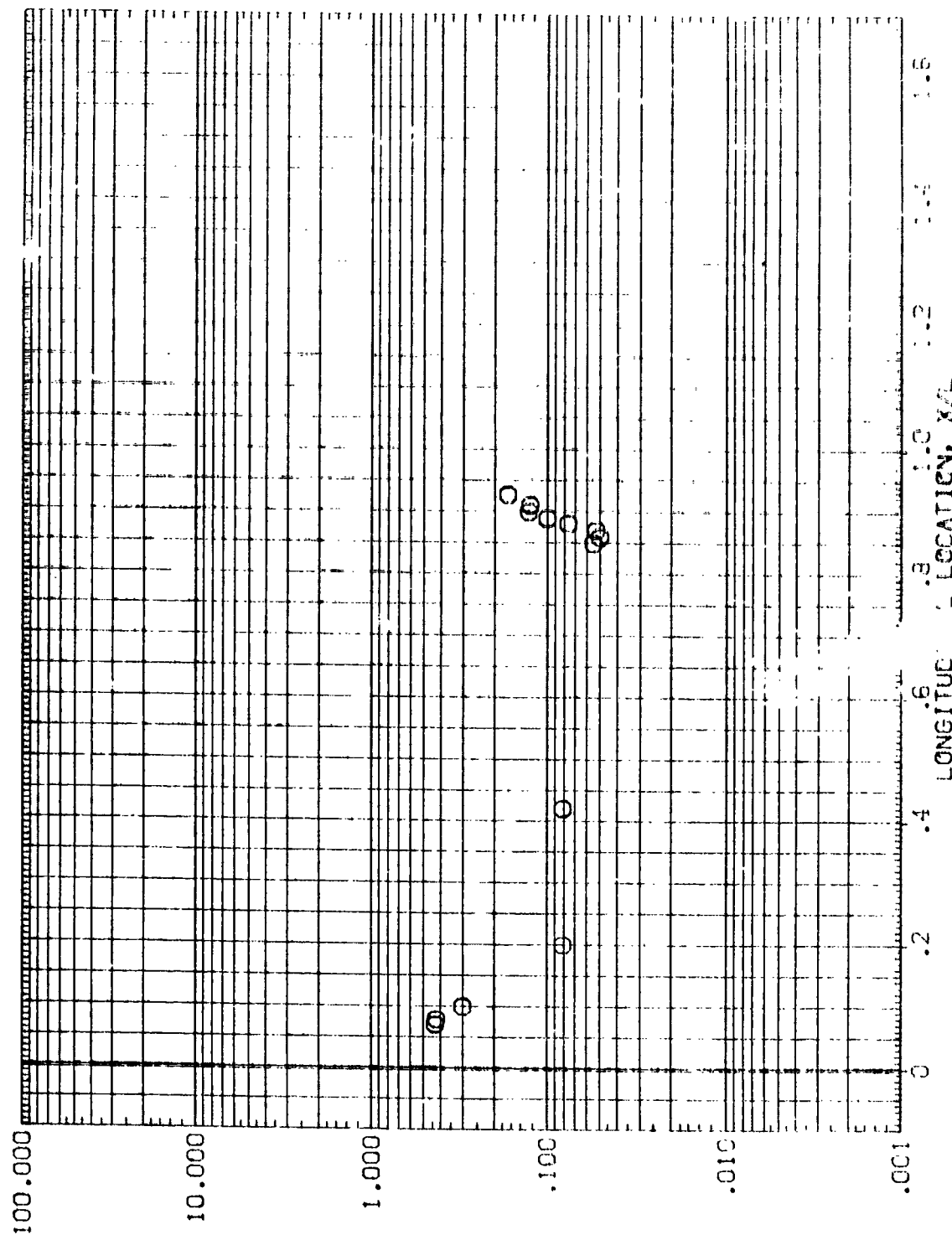


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    P-1 = 17.50

5-505    208

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNBFI4)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (CNBFI4)      DATA NOT AVAILABLE  
 (RNBFI7)      DATA NOT AVAILABLE

EXT TANK      ALPHA      BETA      RV/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

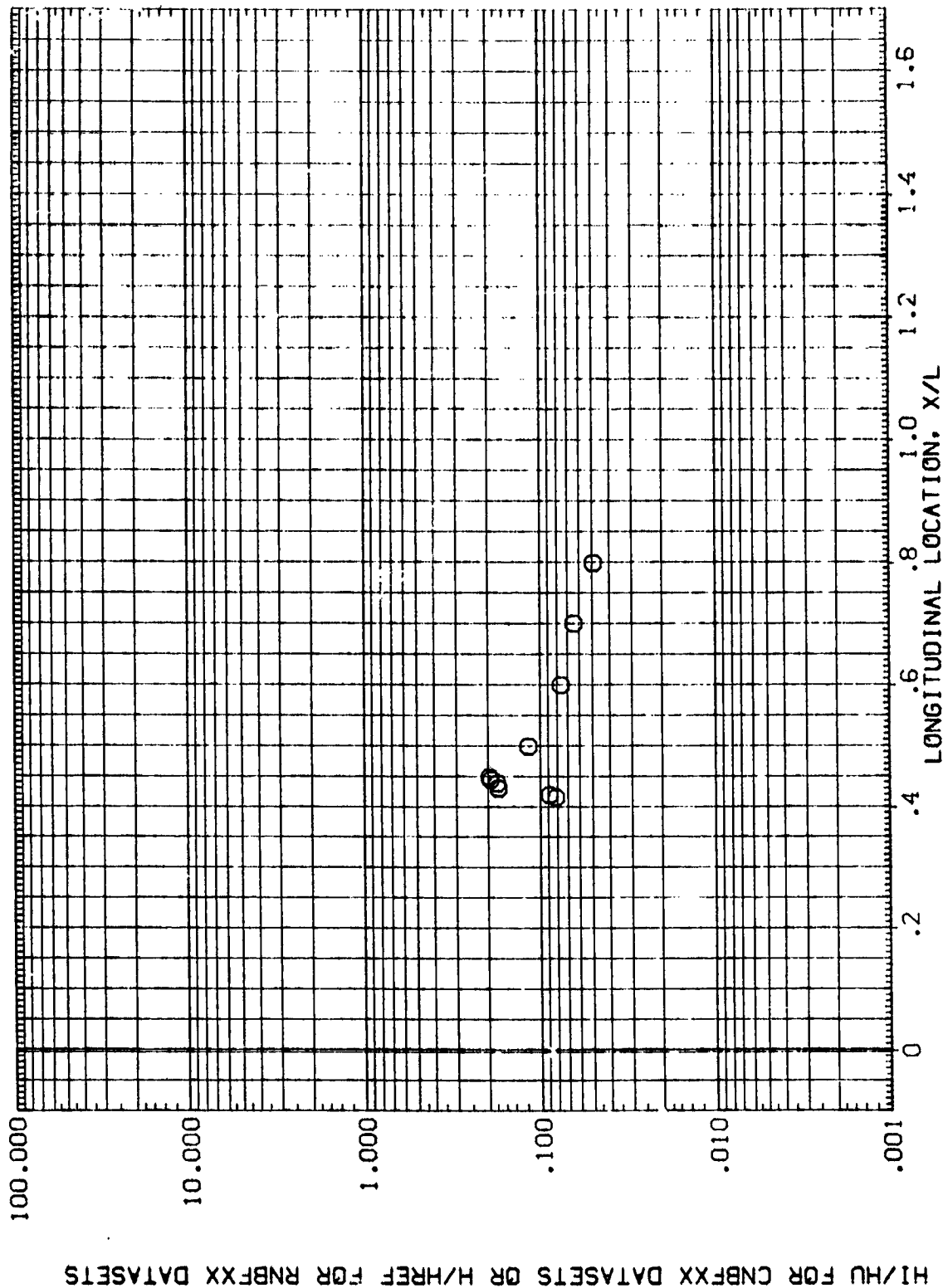


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 163.120

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI4) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (CNBFI4) DATA NOT AVAILABLE  
 (RNBFI7) DATA NOT AVAILABLE

EXT TANK ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

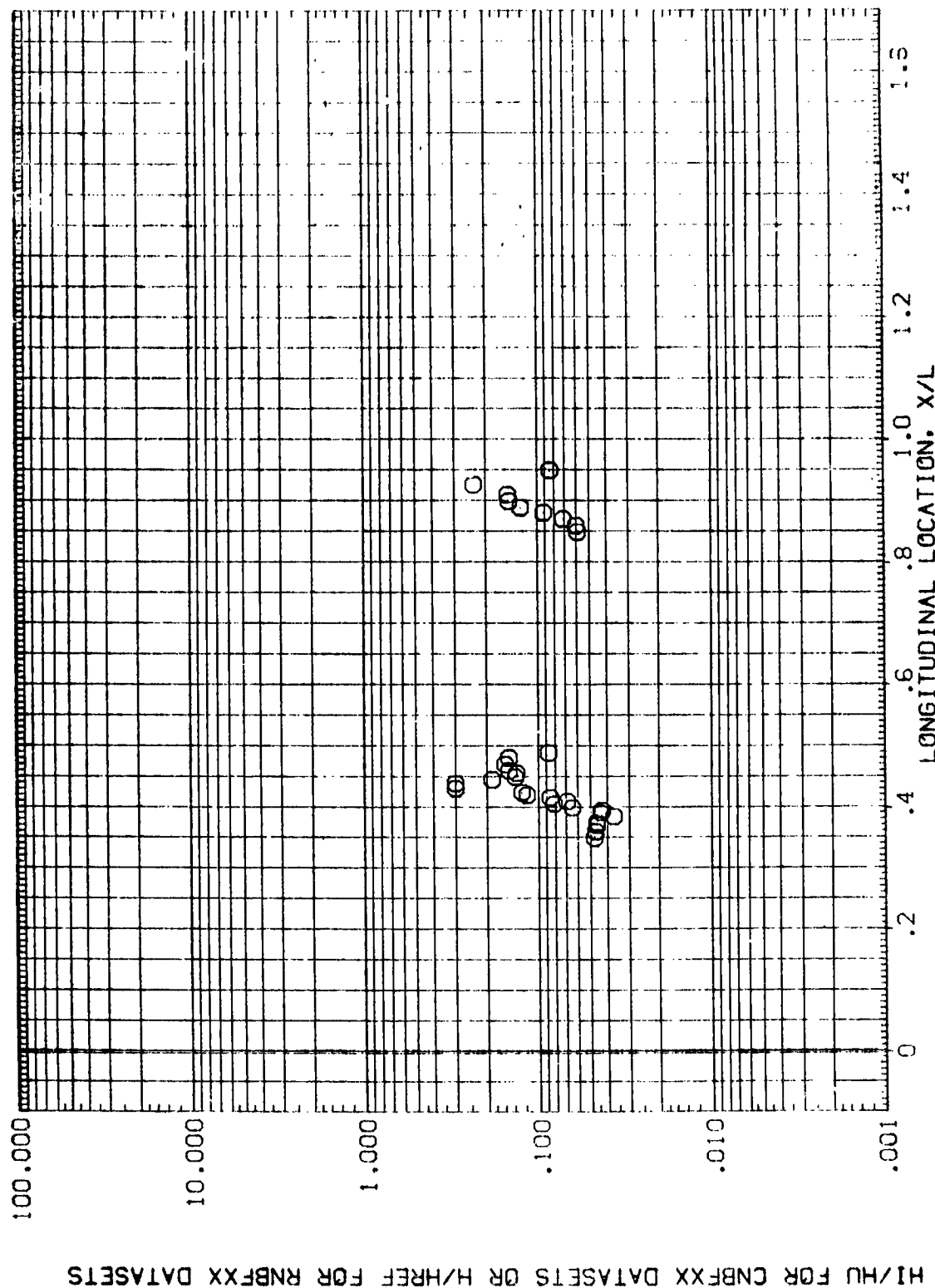


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 168.000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFI4)      ARC3.5-211(IH48)BT /NIPPLE/P/TRIP      .000      .000      5.000

(CNBFI4)      IH-48 (H/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      5.000

(RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

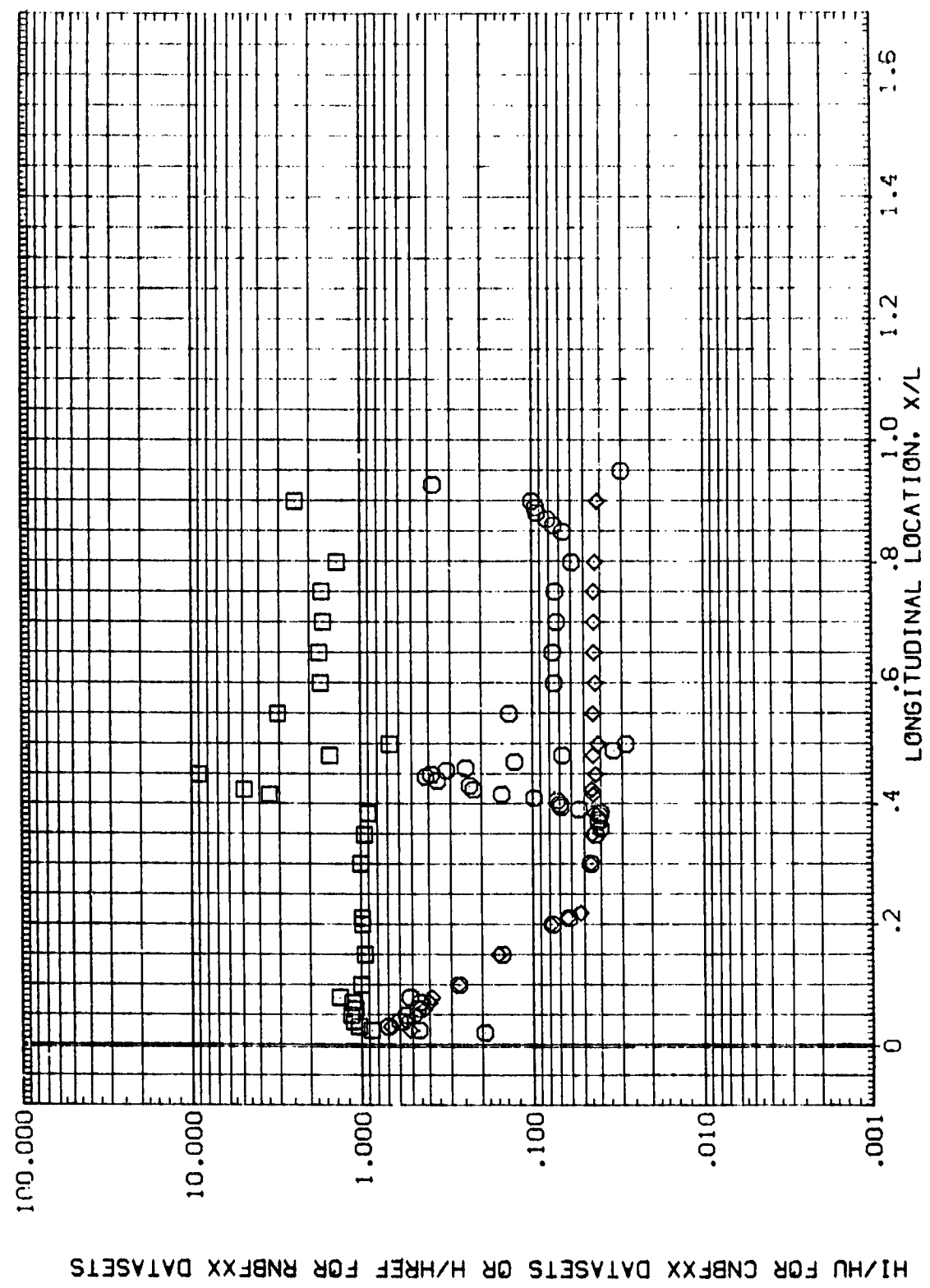


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB14)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      .000      .000      5.000

(CNB14)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      5.000

(RNB17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

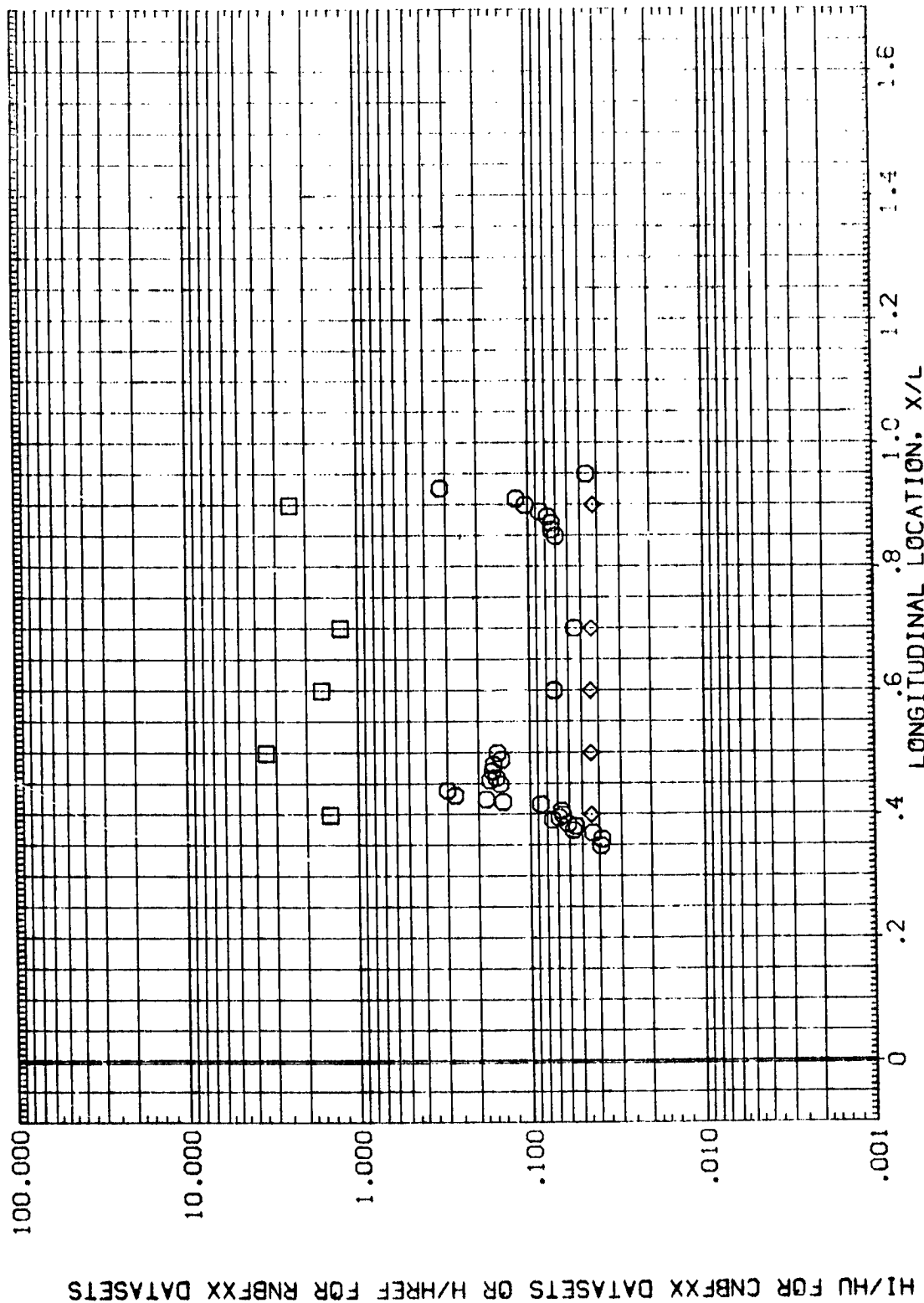


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 191.250

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA    BETA    RN/L  
 (RNB14)      ARC3-5-211(IH48)OT /NIPPLE/P/TRIP      .000    .000    5.000  
 (CNB14)      DATA NOT AVAILABLE      .000    .000    5.000  
 (RNB17)      DATA NOT AVAILABLE      .000    .000    5.000

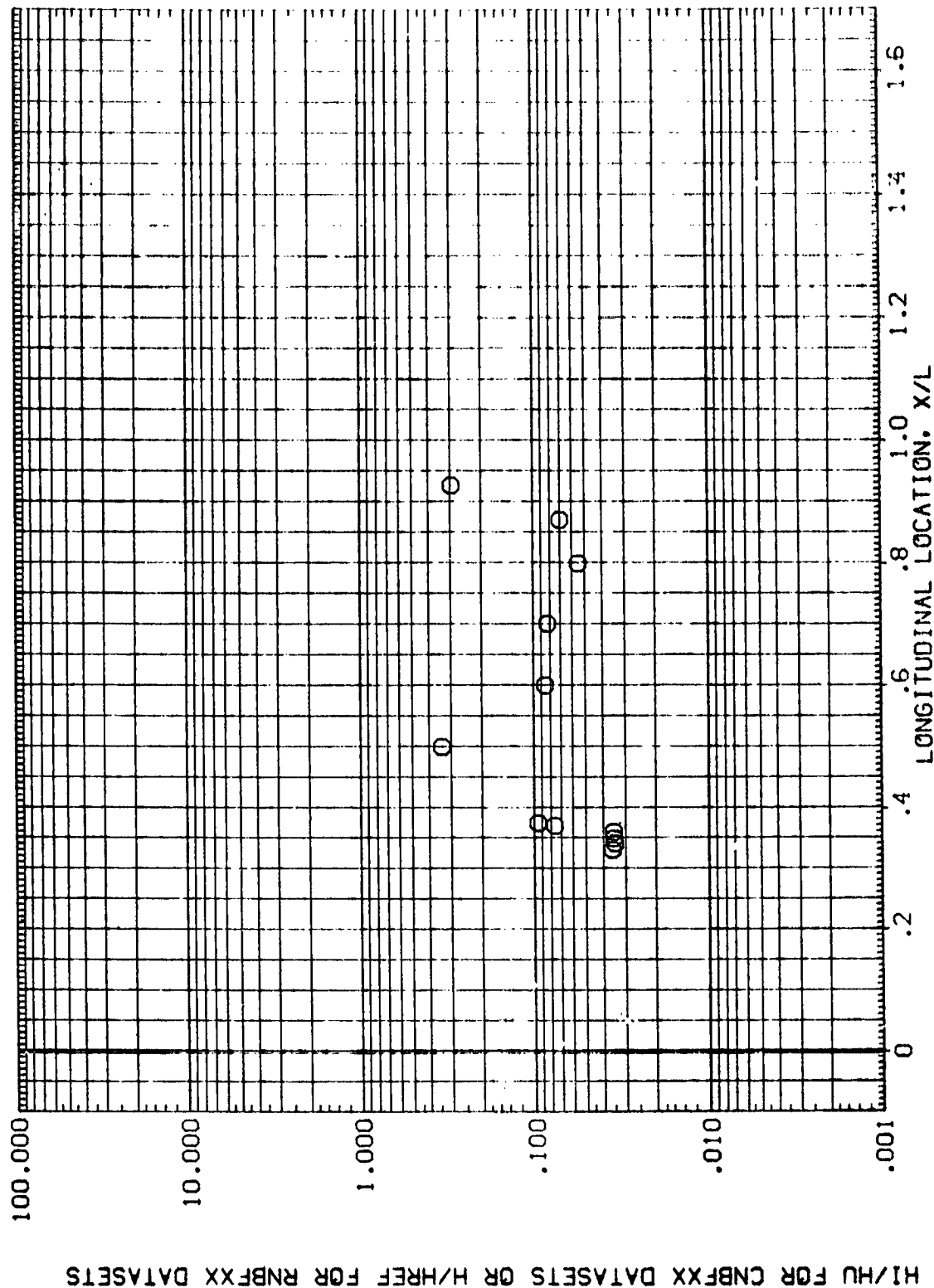


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L  
 (RNBFI4)    ARC3-5-211C(H48)DOT /NIPPLE/P/TRIP    .000    .000    5.000  
 (RNBFI4)    DATA NOT AVAILABLE    .000    .000    5.000  
 (RNBFI7)    DATA NOT AVAILABLE    .000    .000    5.000

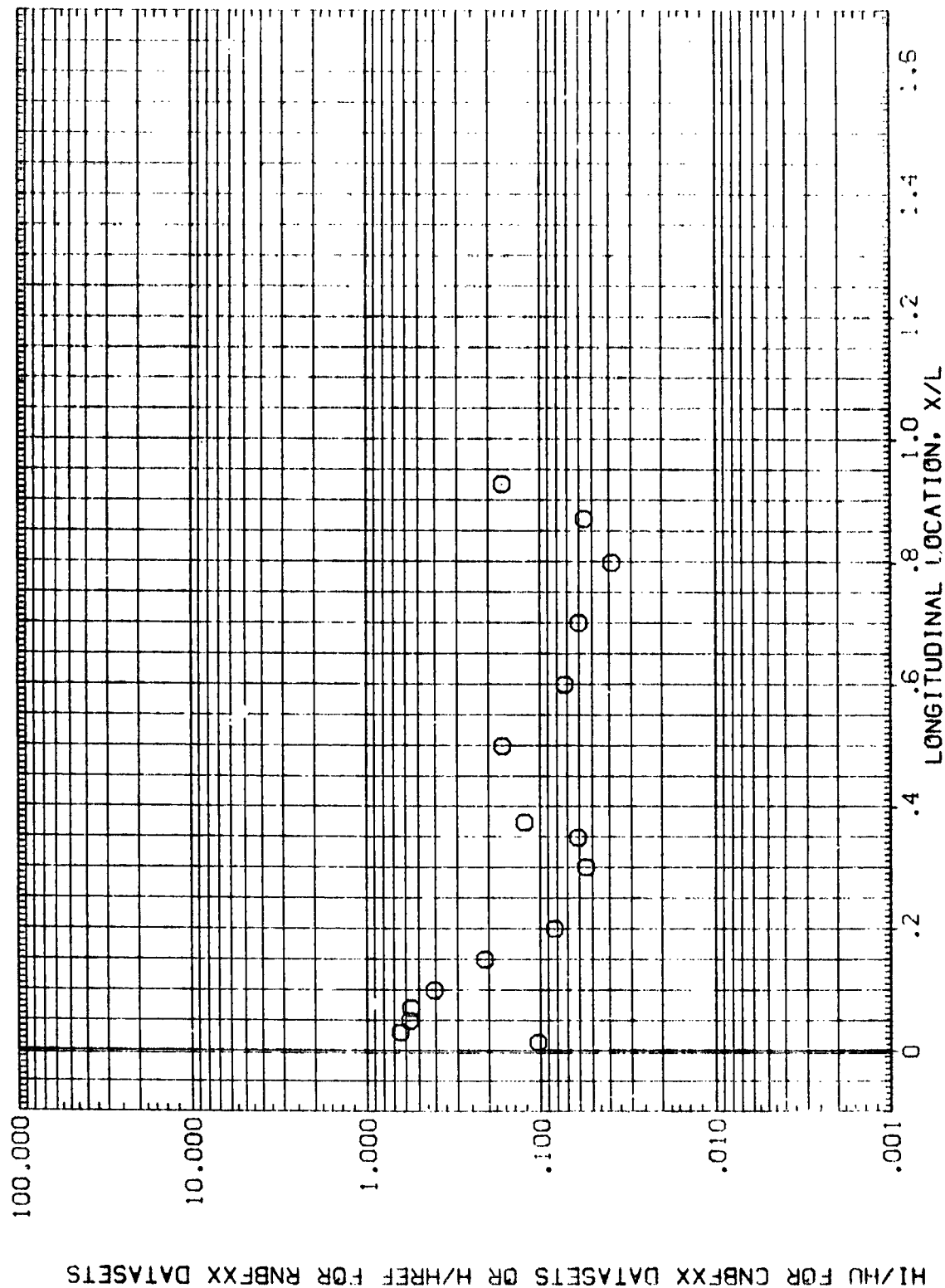


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

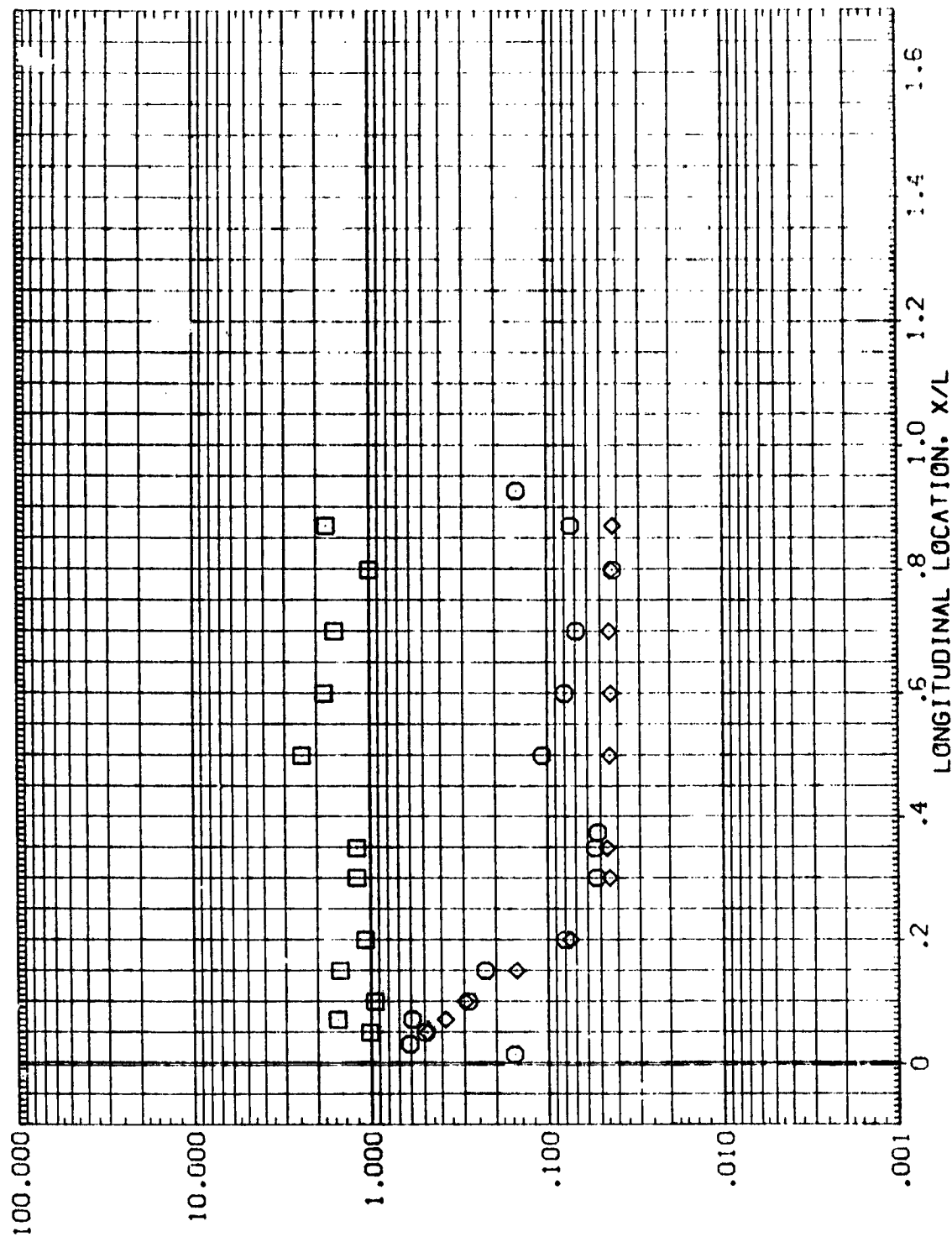
MACH = 5.300    HAW/HT = .900    PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFI4)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      .000      .000      5.000

(CNBFI4)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      .000      .000      5.000

(RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000



HI/HU FOR CNBFX DATASETS OR H/HREF FOR RNBFX DATASETS

FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF15)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000

(CNBF16)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

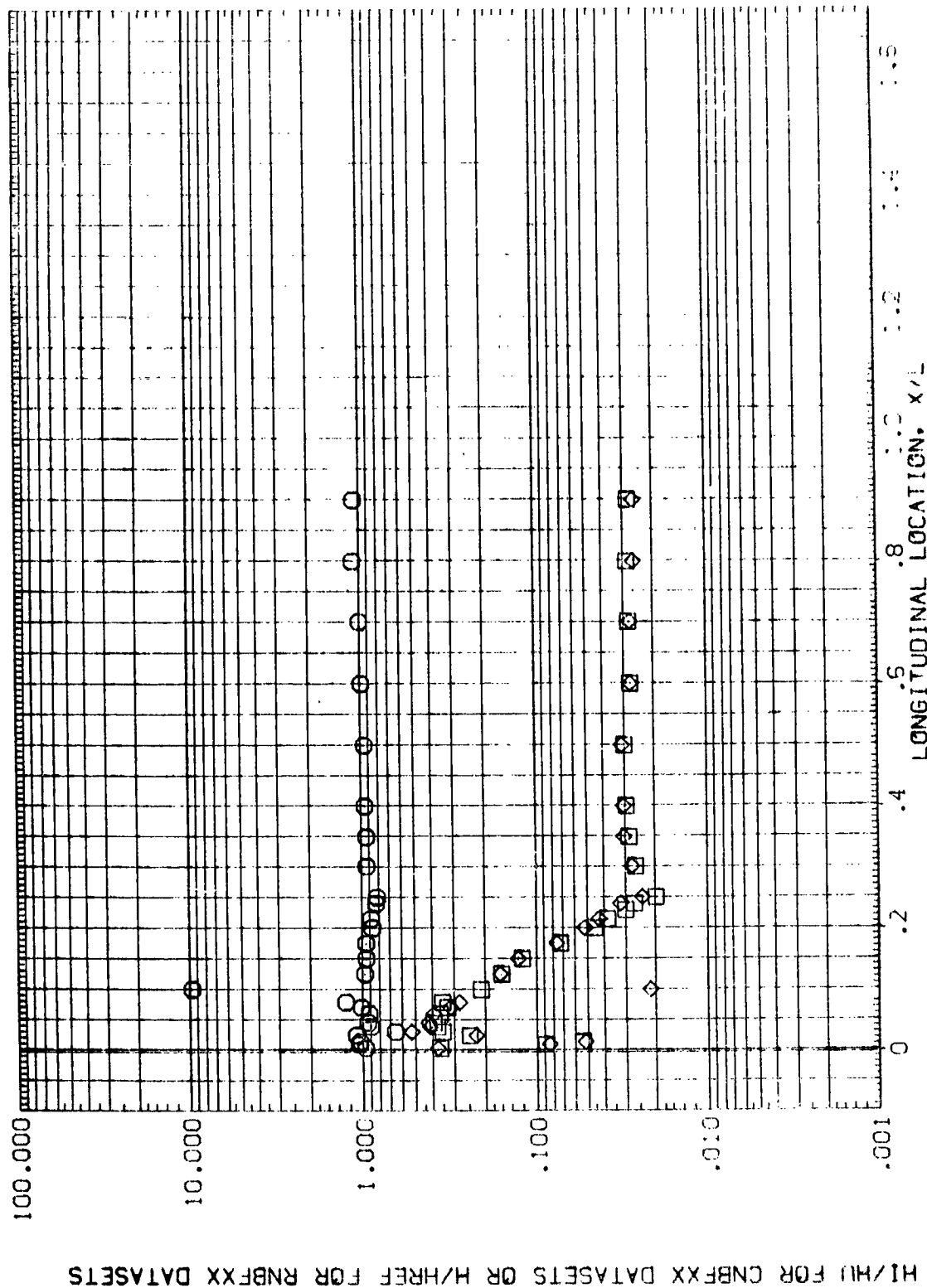


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI8)      DATA NOT AVAILABLE

EXT TANK      ALPHA      BETA      RA/L  
 -5.000      -5.000      .000      5.000  
 -5.000      -5.000      .000      5.000  
 -5.000      -5.000      .000      5.000

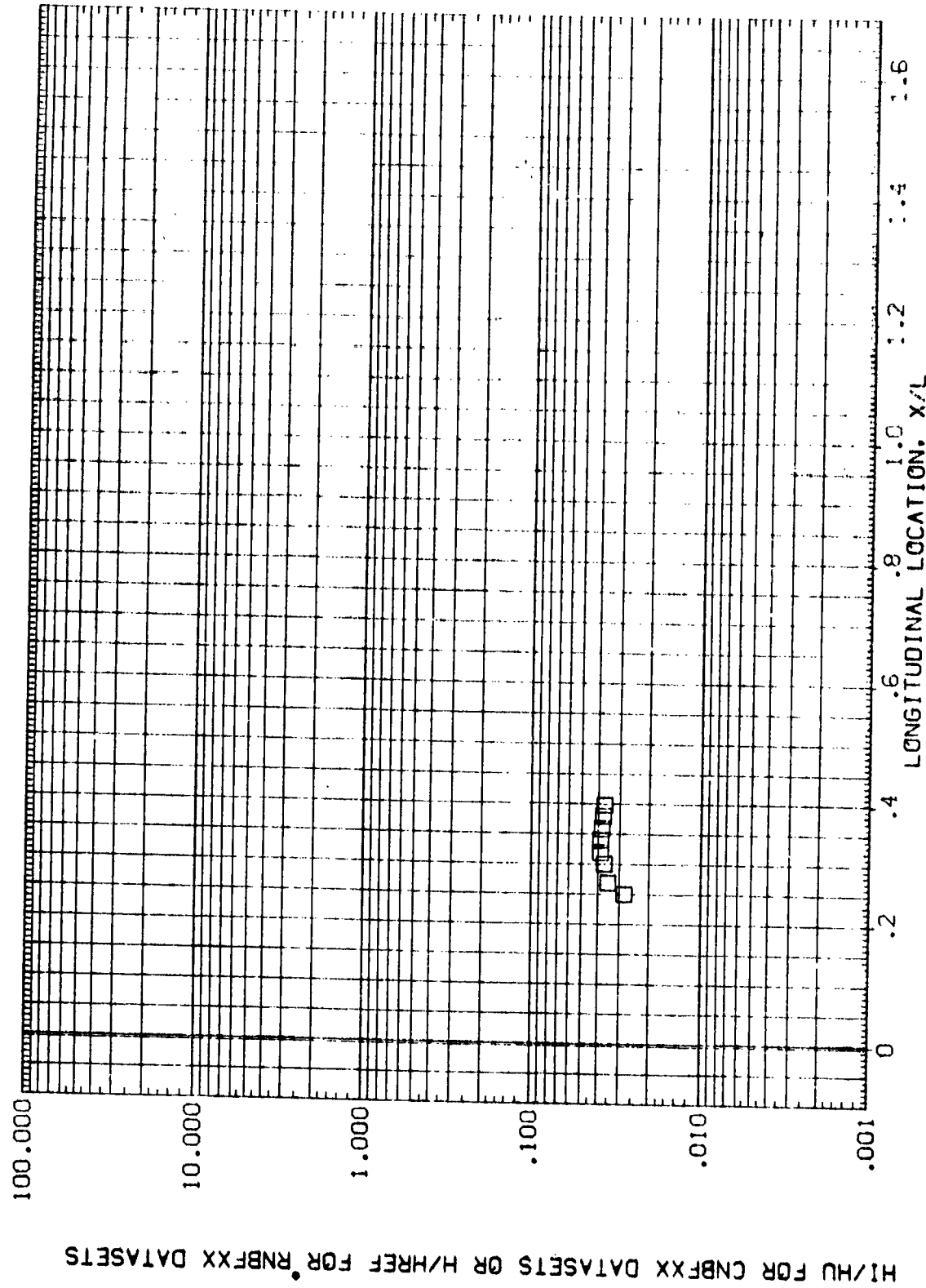


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/H<sub>T</sub> = .900      PHI = 55.000

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF15)  
(RNBFI5)  
(RNBFI8)



HI-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT  
ARC3-S-211 (IH48) OT /NIPPLE/P/TRIP  
ARC3-S-211 (IH48) ET /NIPPLE/CLEAN

A-Phi  
-5.000  
-5.000  
-5.000

BETA  
.003  
.003  
.000

RM/L  
5.000  
5.000  
5.000

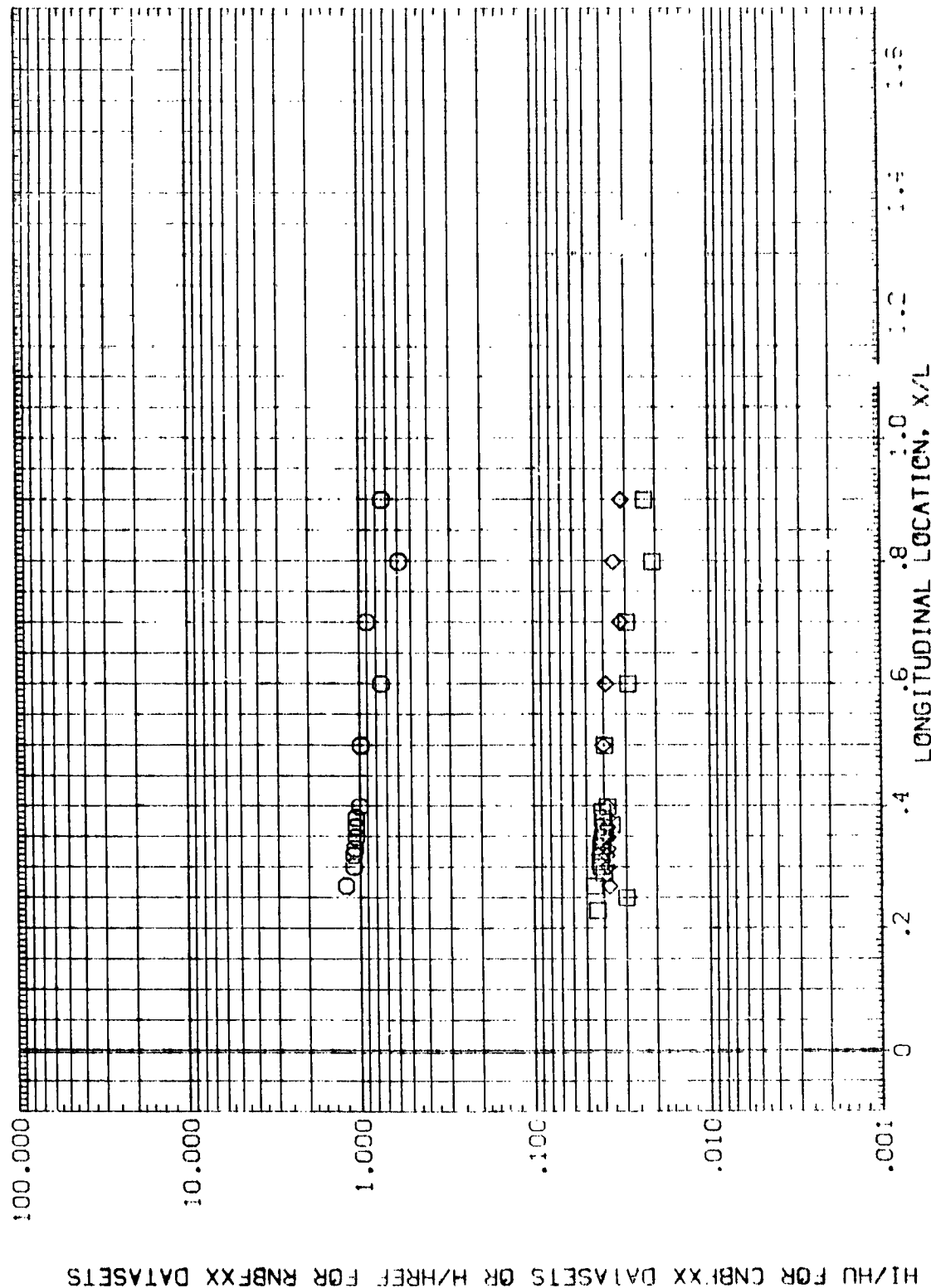


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 57.500



DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (CNBF15)      ARCS.5-211(1448)OT /NIPPLE/P/TRIP  
 (CNBF18)      DATA NOT AVAILABLE

EXT TANK      ALPHA      BETA      RV/L  
 -5.000      -5.000      .000      5.000  
 -5.000      -5.000      .000      5.000  
 -5.000      -5.000      .000      5.000

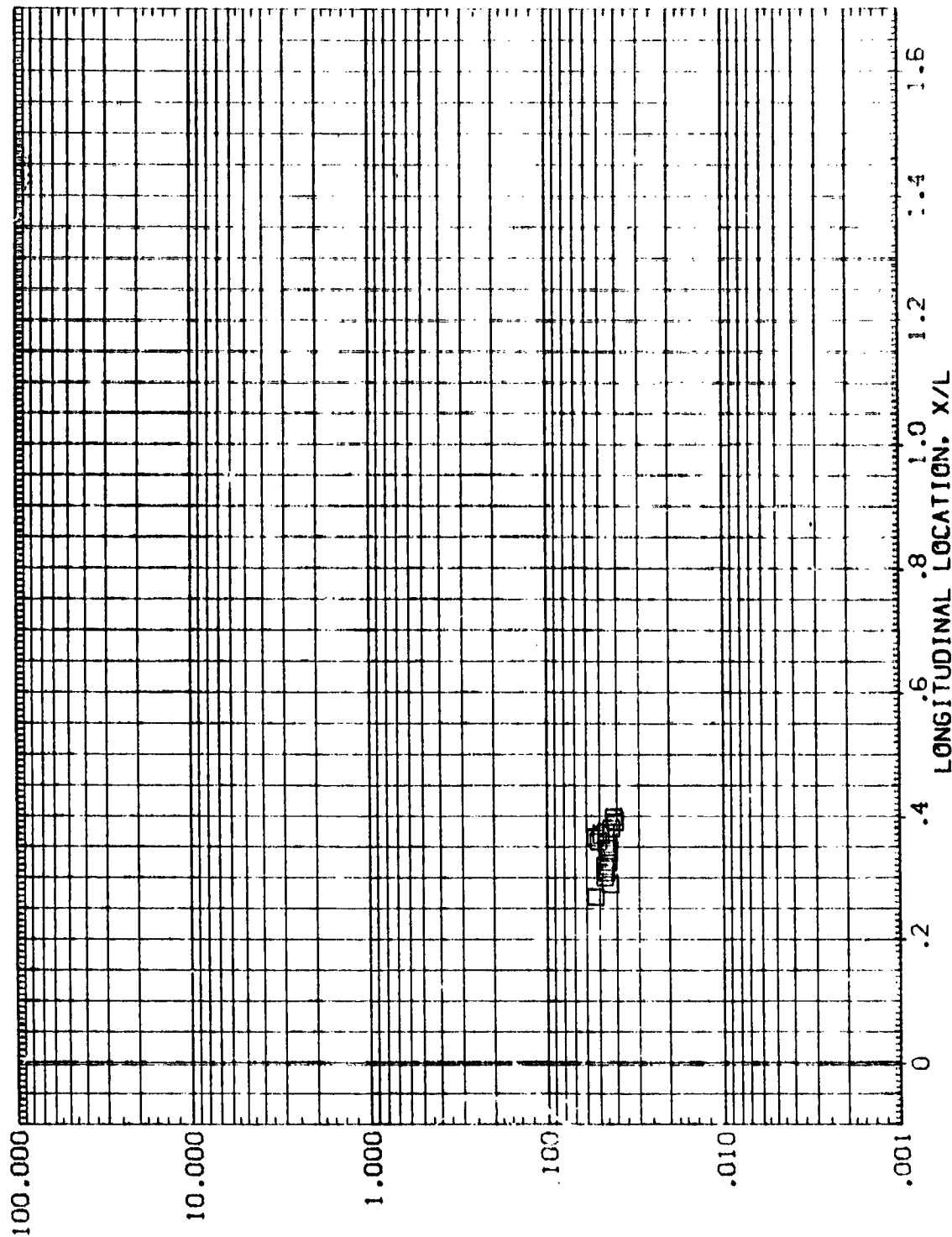


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 78.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RND

(CNBF15)      [H-48 (H/HU) LABELED H/HREF] ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF15)      ARC3-5-211(IH48)ET /NIPPLE/P/TRIP      -5.000      .000      5.000

(CNBF18)      ARC3-5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

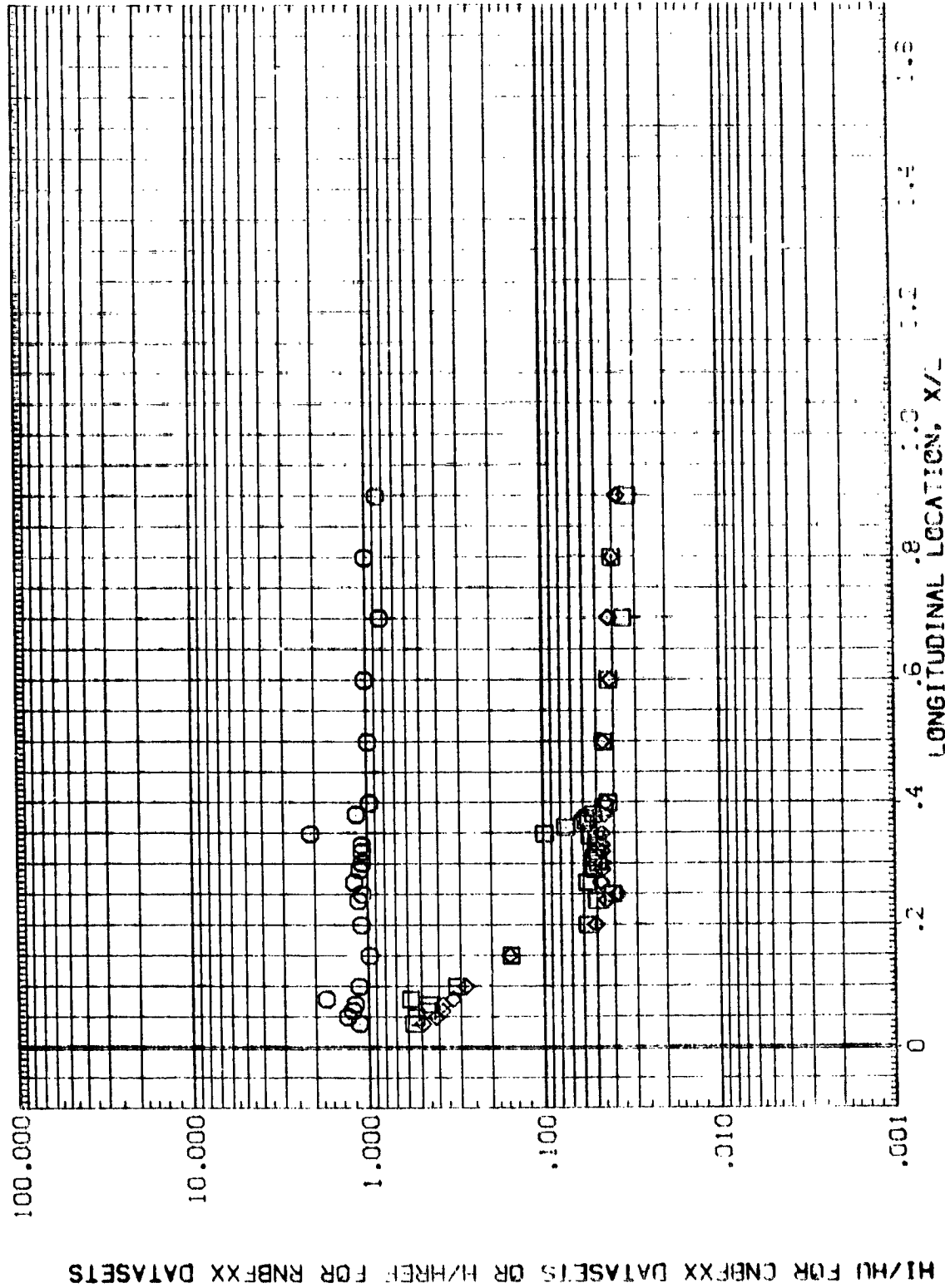


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      R/L

(CNBF15)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(RNB15)      ARC3.5-211(IH48)ET /NIPPLE/P/TRIP      -5.000      .000      5.000

(RNB18)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

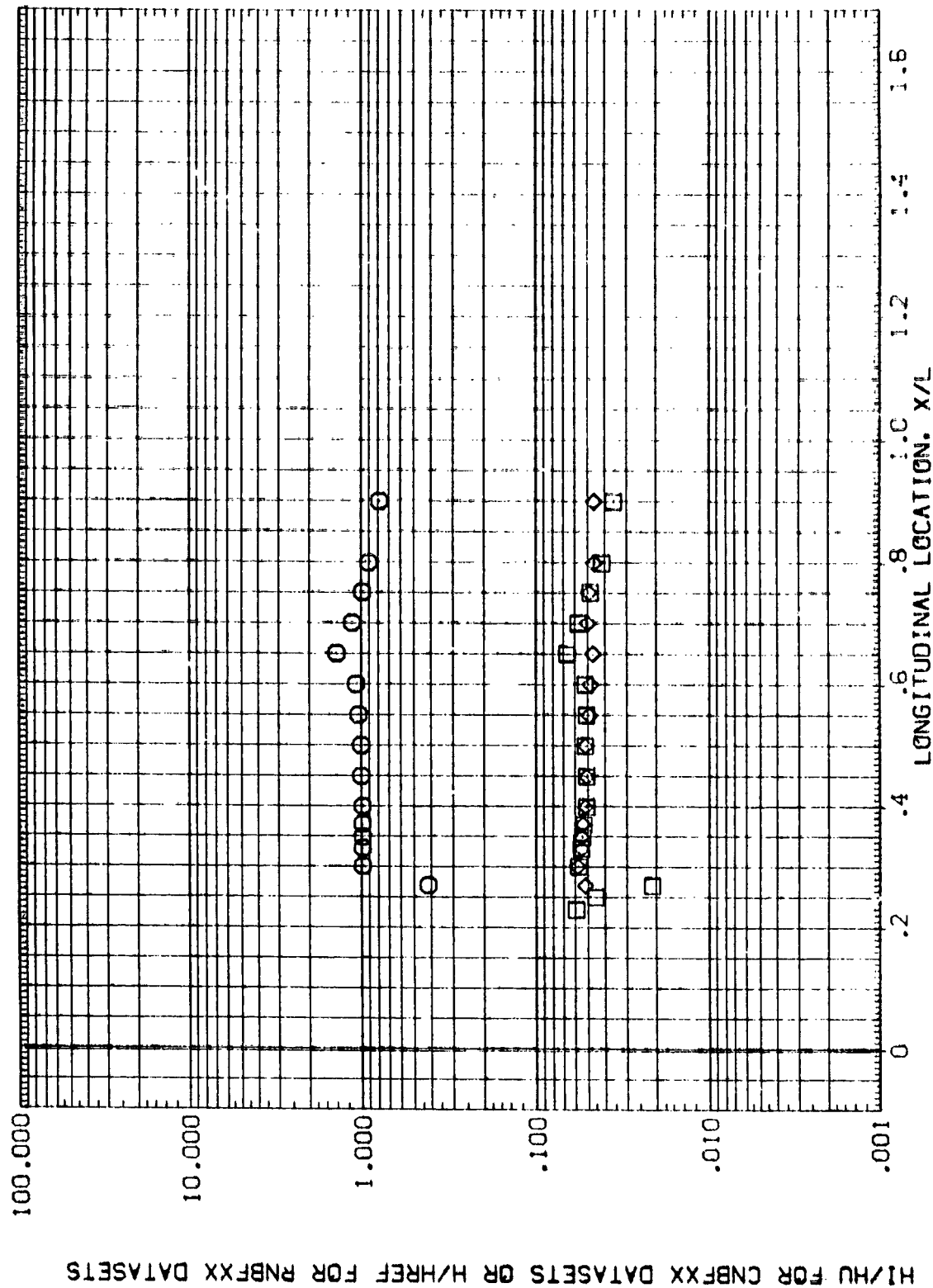


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (CNBF15) DATA NOT AVAILABLE  
 (CNBF15) ARC3-S-211(IH48)OT /NIPPLE/P/TRIP  
 (CNBF18) DATA NOT AVAILABLE

EXT TANK

ALPHA BETA GAMMA  
 -5.000 .000 5.000  
 -5.000 .000 5.000  
 -5.000 .000 5.000

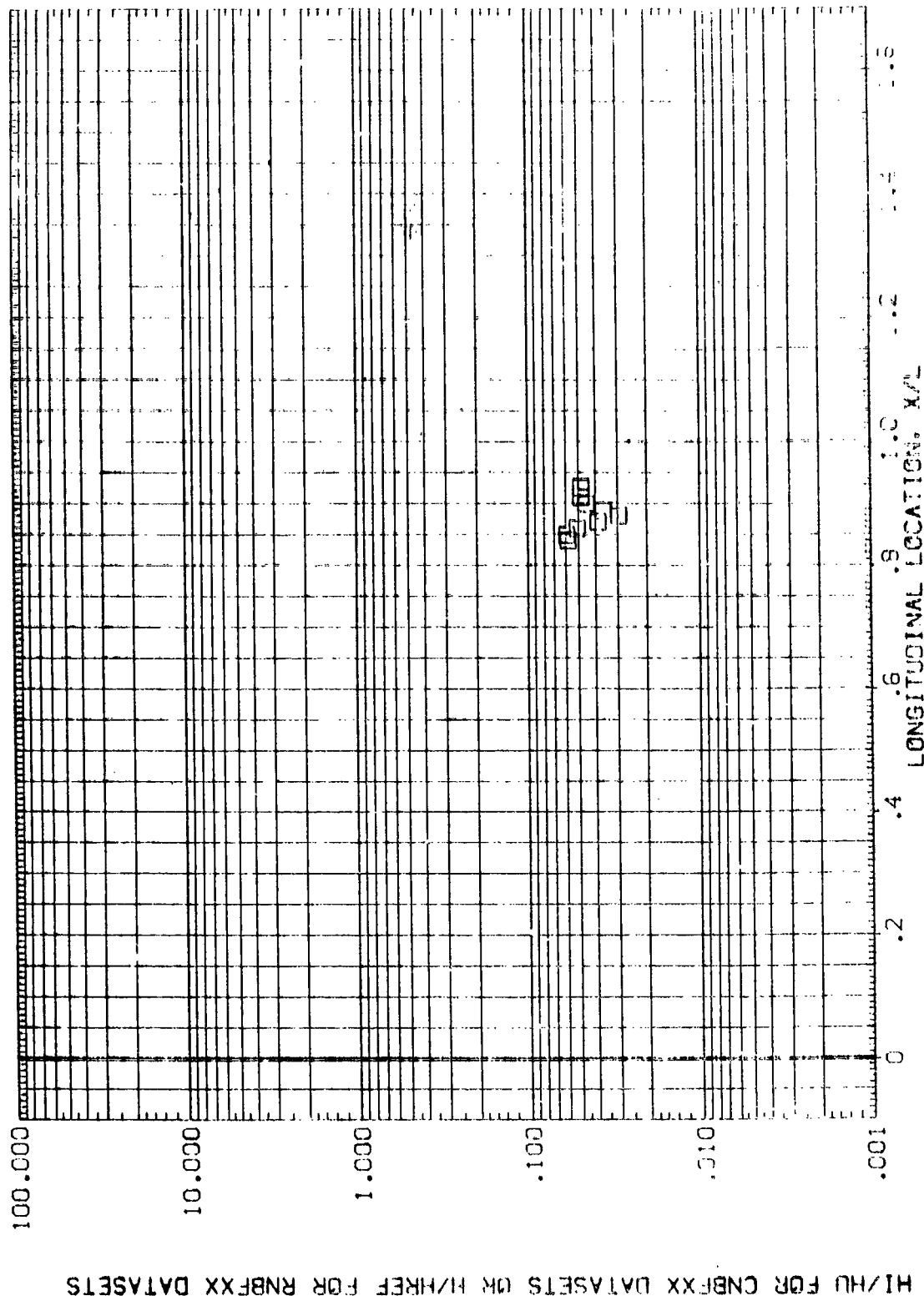


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 125.400

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

{ CNBF15 }  
{ CNBF15 }  
{ CNBF18 }

DATA NOT AVAILABLE  
ARC3.5-211(1H48JOT /NIPPLE/P/TRIP  
DATA NOT AVAILABLE

EXT TANK

ALPHA

-5.000  
-5.000  
-5.000

BETA

.000  
.000  
.000

RN/L

5.000  
5.000  
5.000

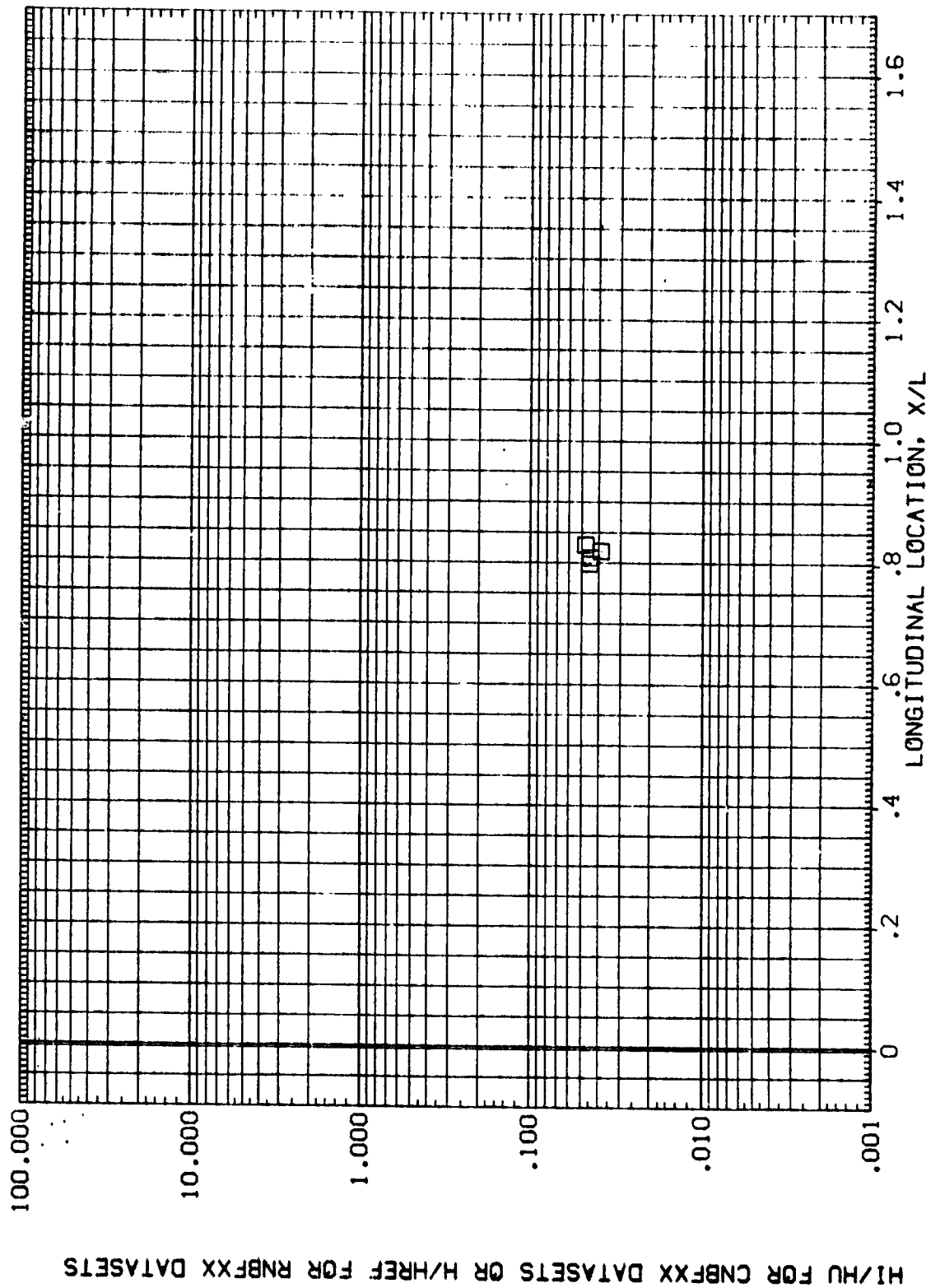


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HI = .900 PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF15)      1H-48 (H1/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF15)      ARC3.5-211(1H48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000

(RNBF18)      ARC3.5-211(1H48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

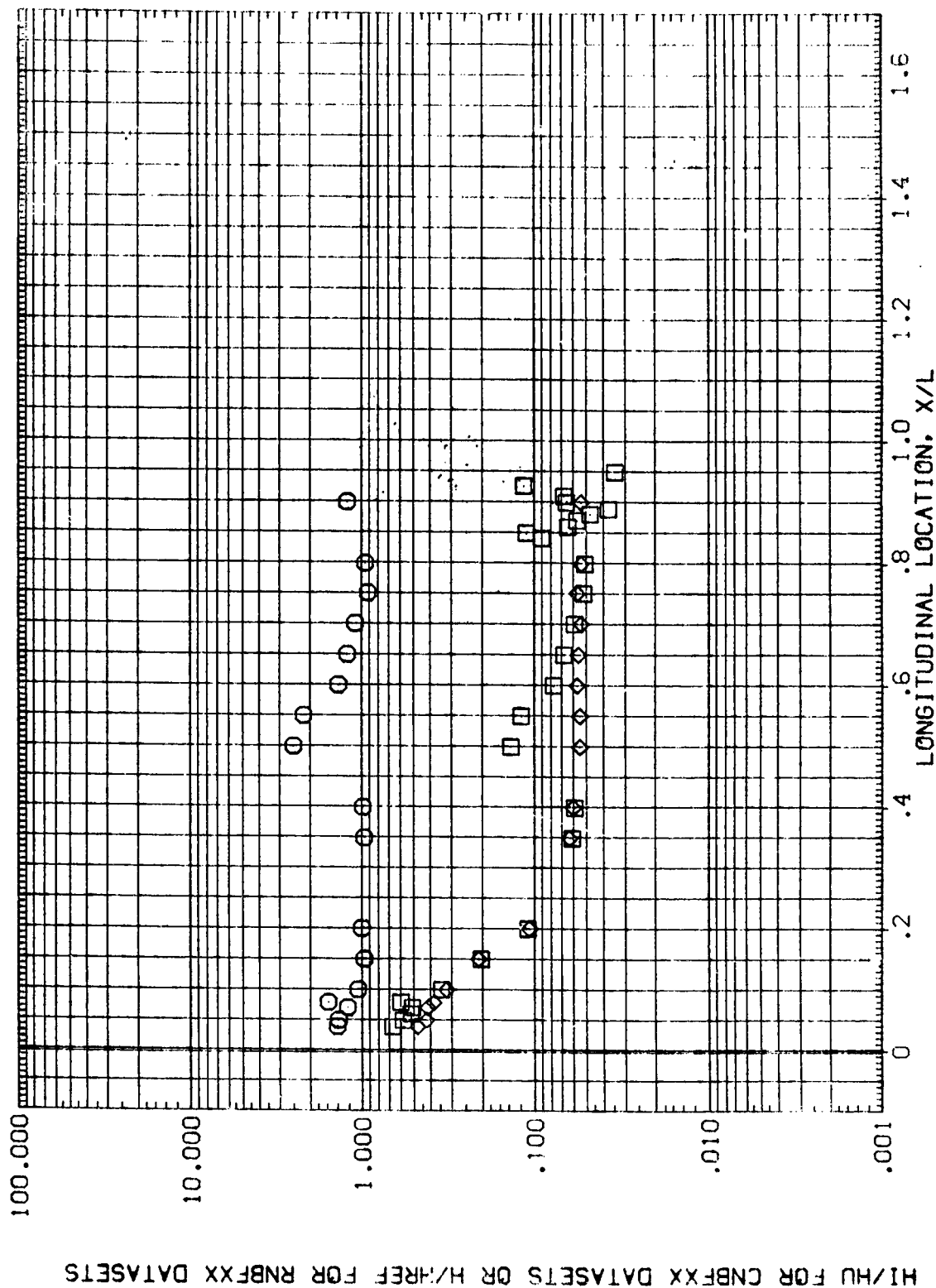


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI8)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

EXT TANK

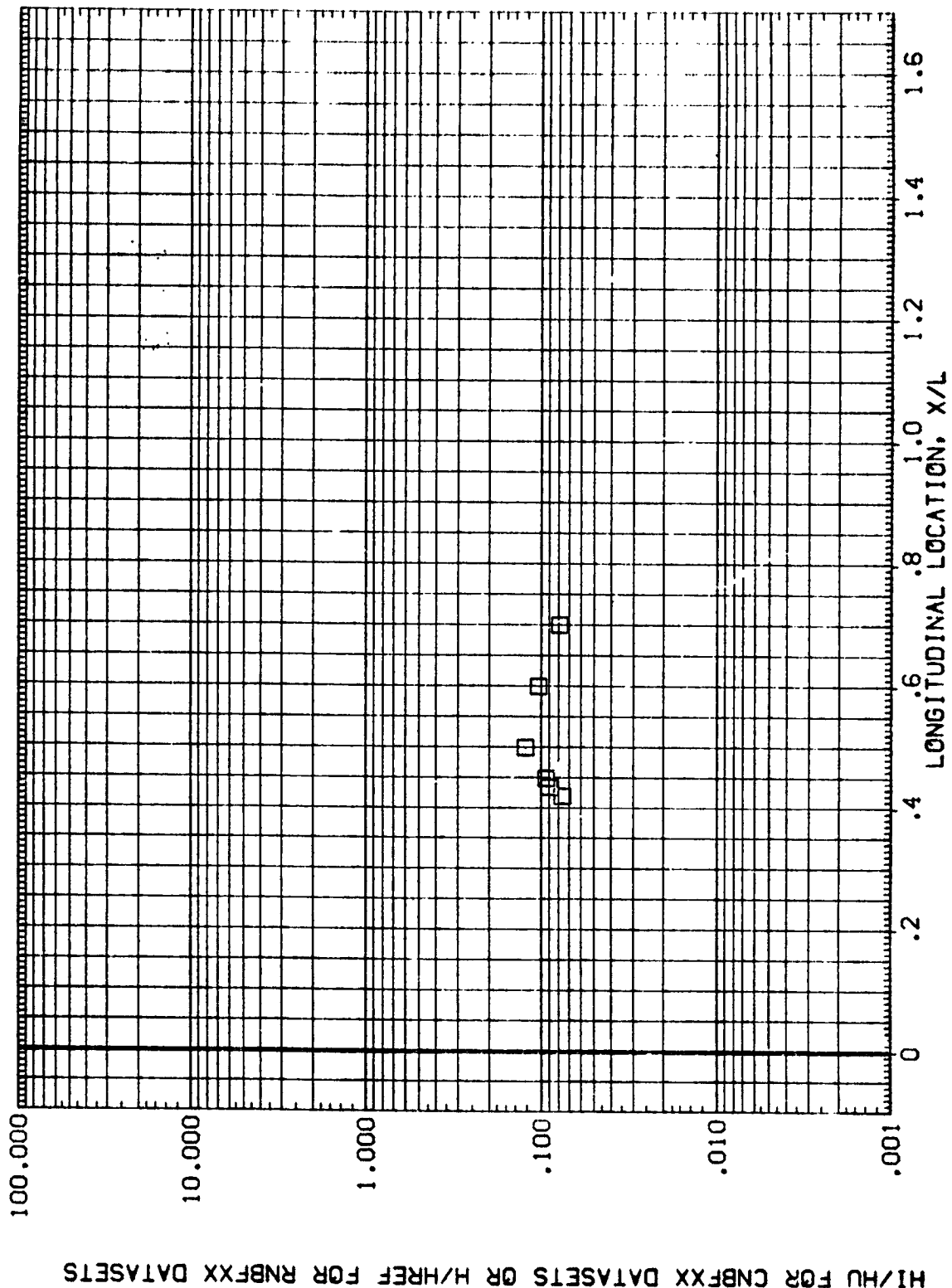


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 142.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(CNBF15)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(CNBF15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000

(CNBF18)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

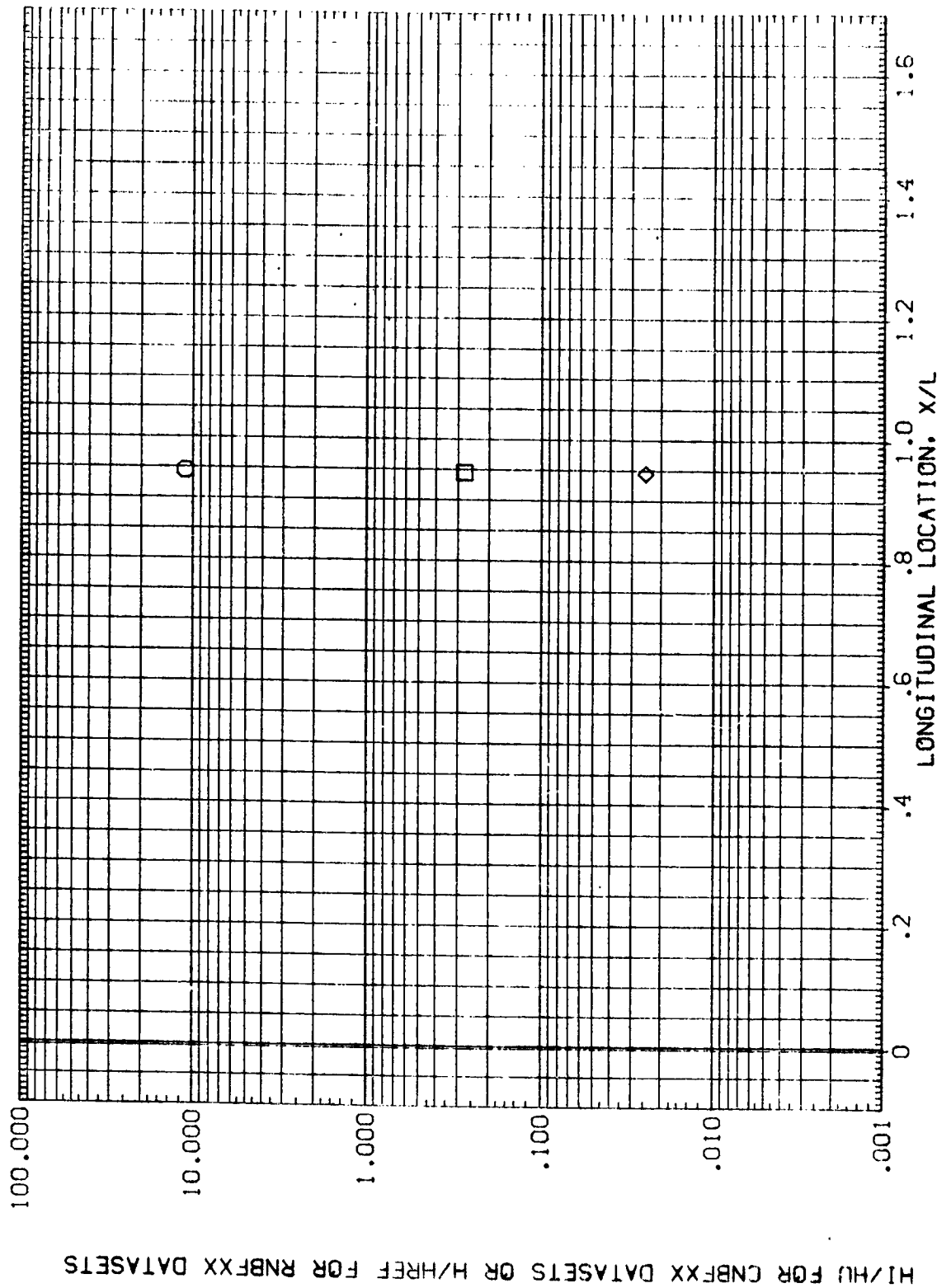


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 154.980



DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (RNBF15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBF18)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

EXT TANK

HI/HU FOR CNBFXX DATASETS OR H/HREF FOR RNBFXX DATASETS

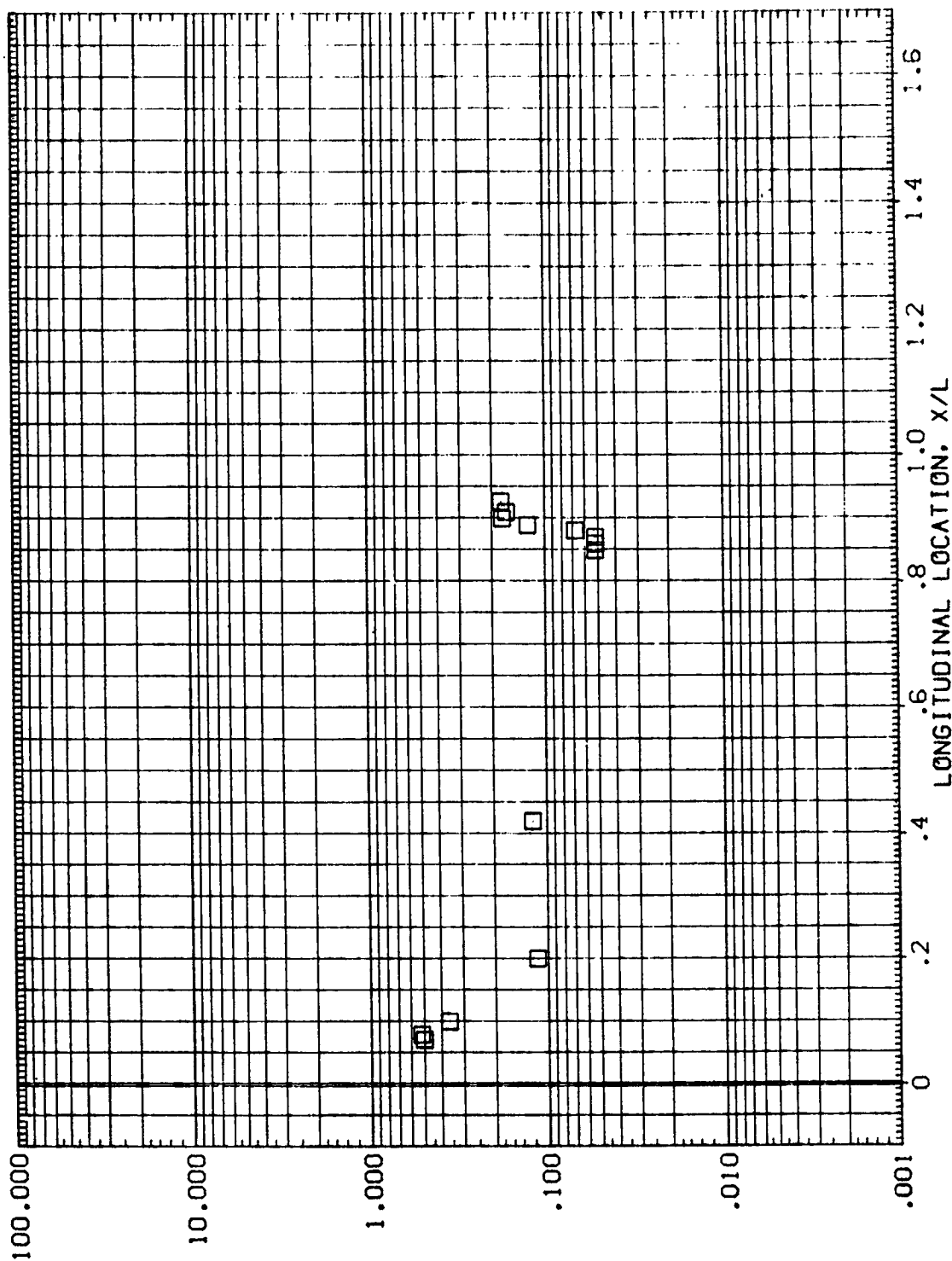


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 157.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (RNBF15)      ARC3.5-211(1H48J01 /NIPPLE/P/TRIP  
 (RNBF18)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

EXT TANK

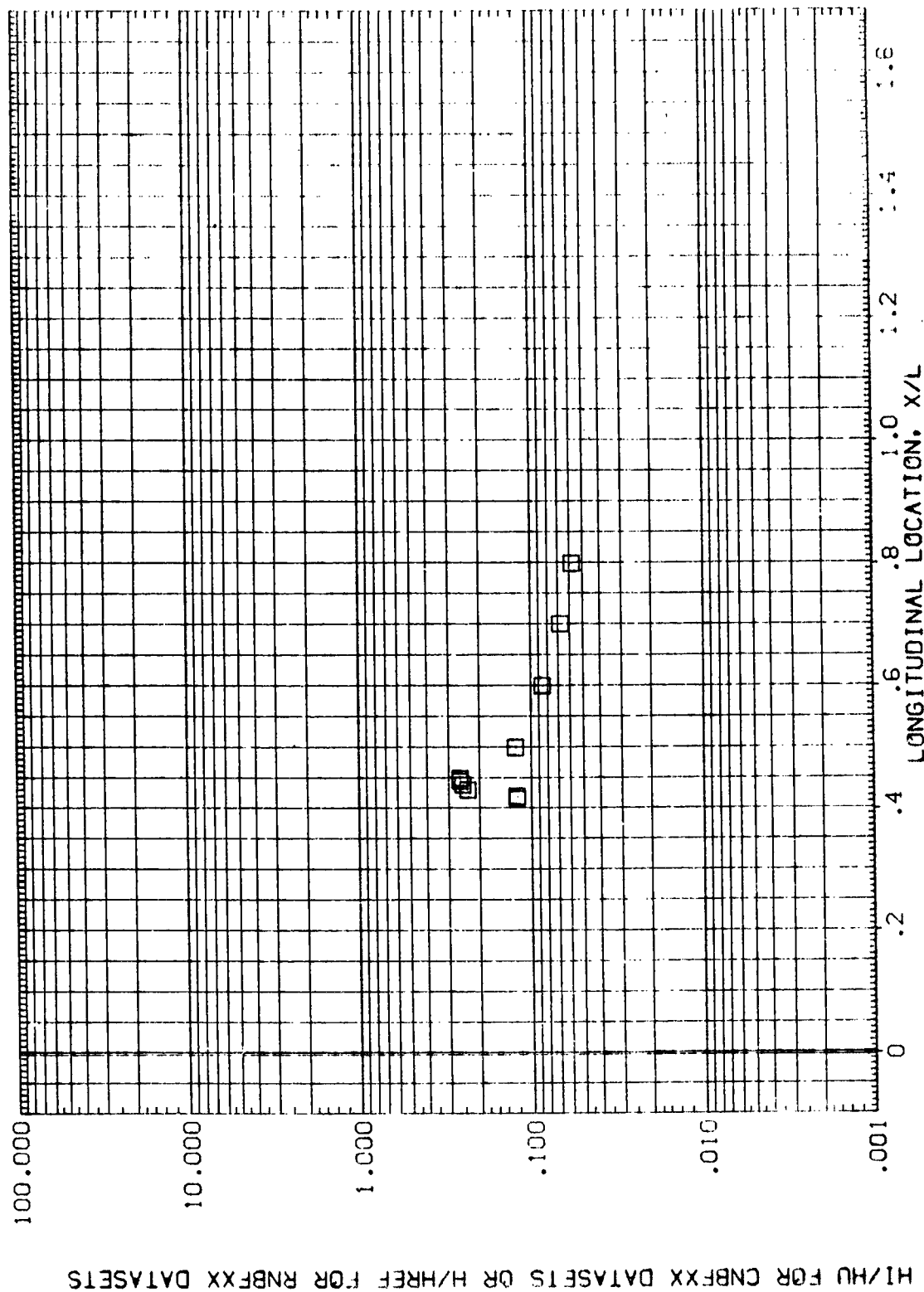


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (CNBF15)      ARC3-S-211(CH4830T /NIPPLE/P/TRIP  
 (CNBF18)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .000      5.000  
 -5.000      .000      5.000

EXT TANK

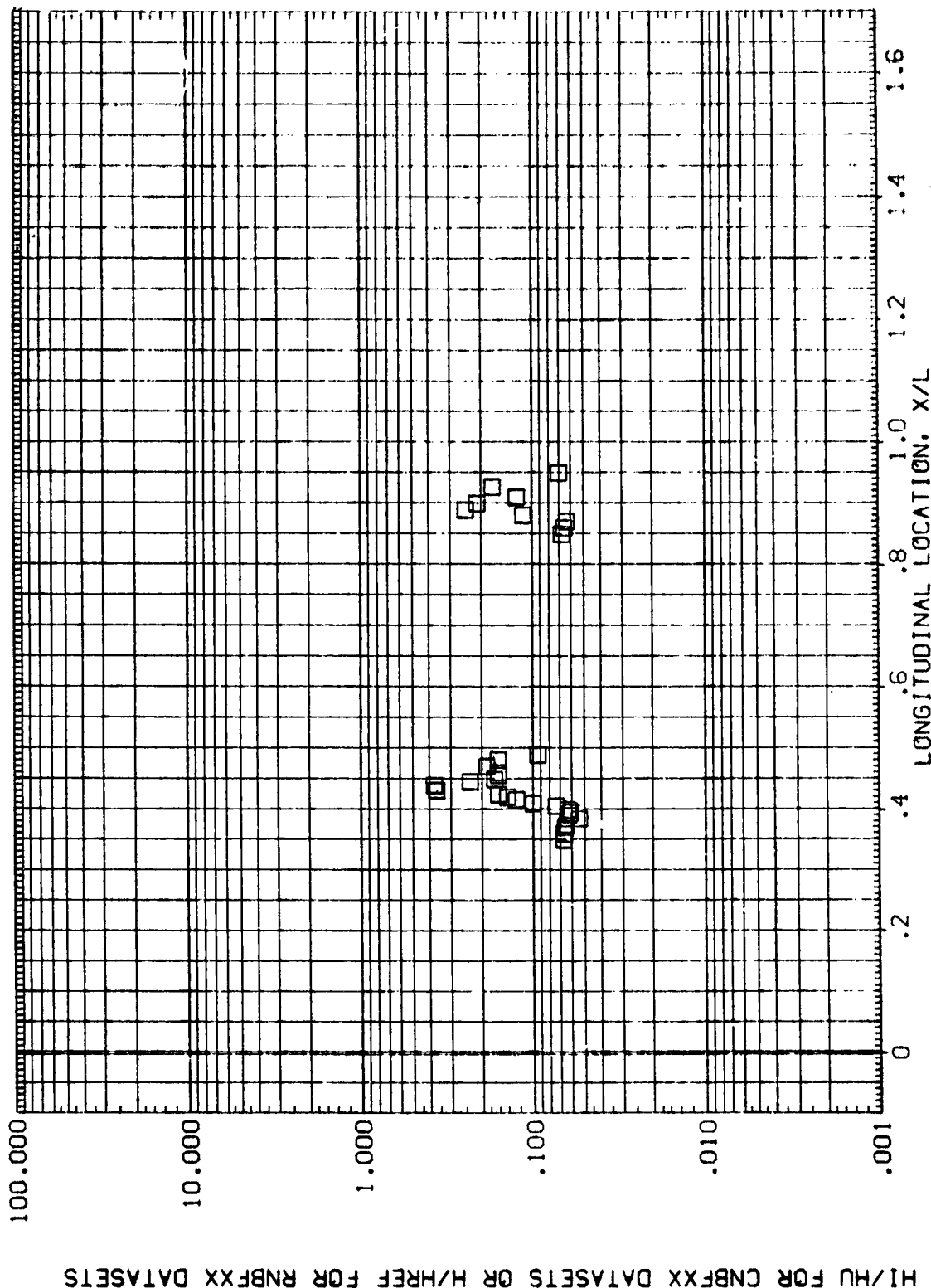


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 168.000

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CNBF15) HI-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT  
 (CNBF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP EXT TANK  
 (CNBF18) ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK

RV/L

BETA

ALPHA

EXT TANK

ET INTERFERENCE DAT

EXT TANK

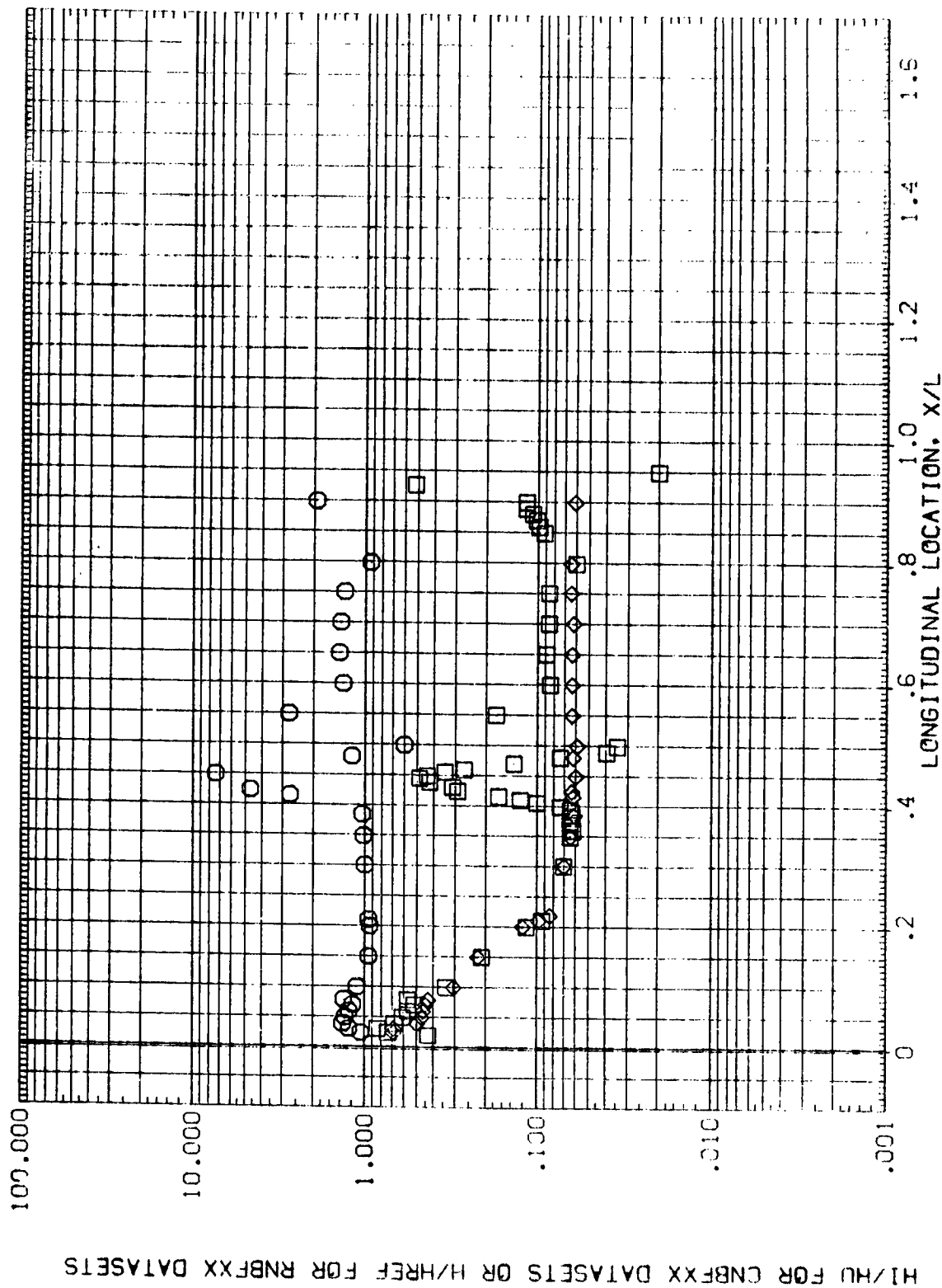


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/H<sup>T</sup> = .900 PHI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(CNBF15)	IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT	-5.000	.000	5.000
(CNBF15)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	-5.000	.000	5.000
(CNBF18)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	-5.000	.000	5.000

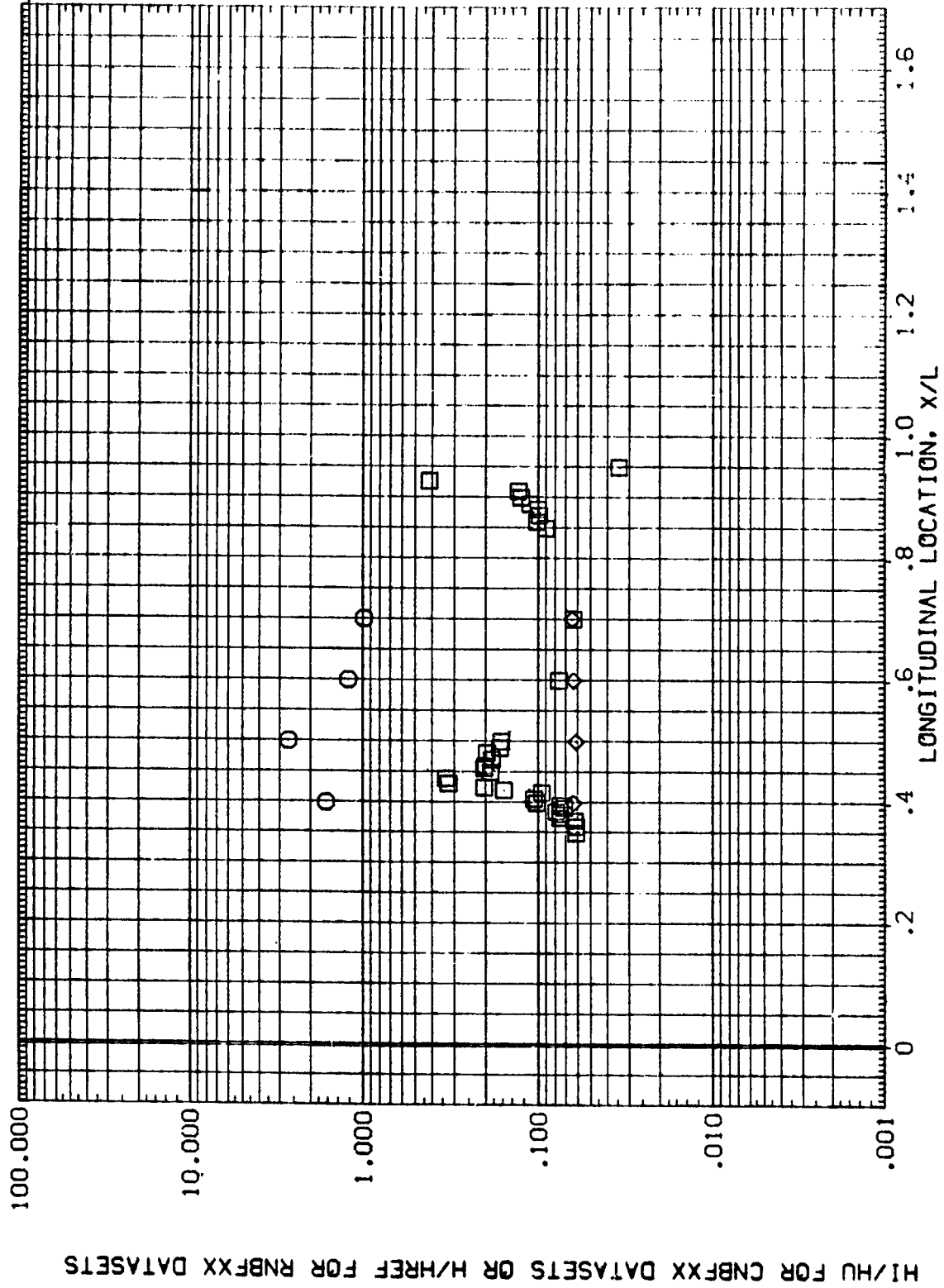


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (RNB15)      ARC3.5-211(144)OT /NIPPLE/P/TRIP  
 (RNB18)      DATA NOT AVAILABLE

EXT TANK      ALPHA      BETA      RV/L  
 -5.000      -5.000      .000      5.000  
 -5.000      -5.000      .000      5.000  
 -5.000      -5.000      .000      5.000

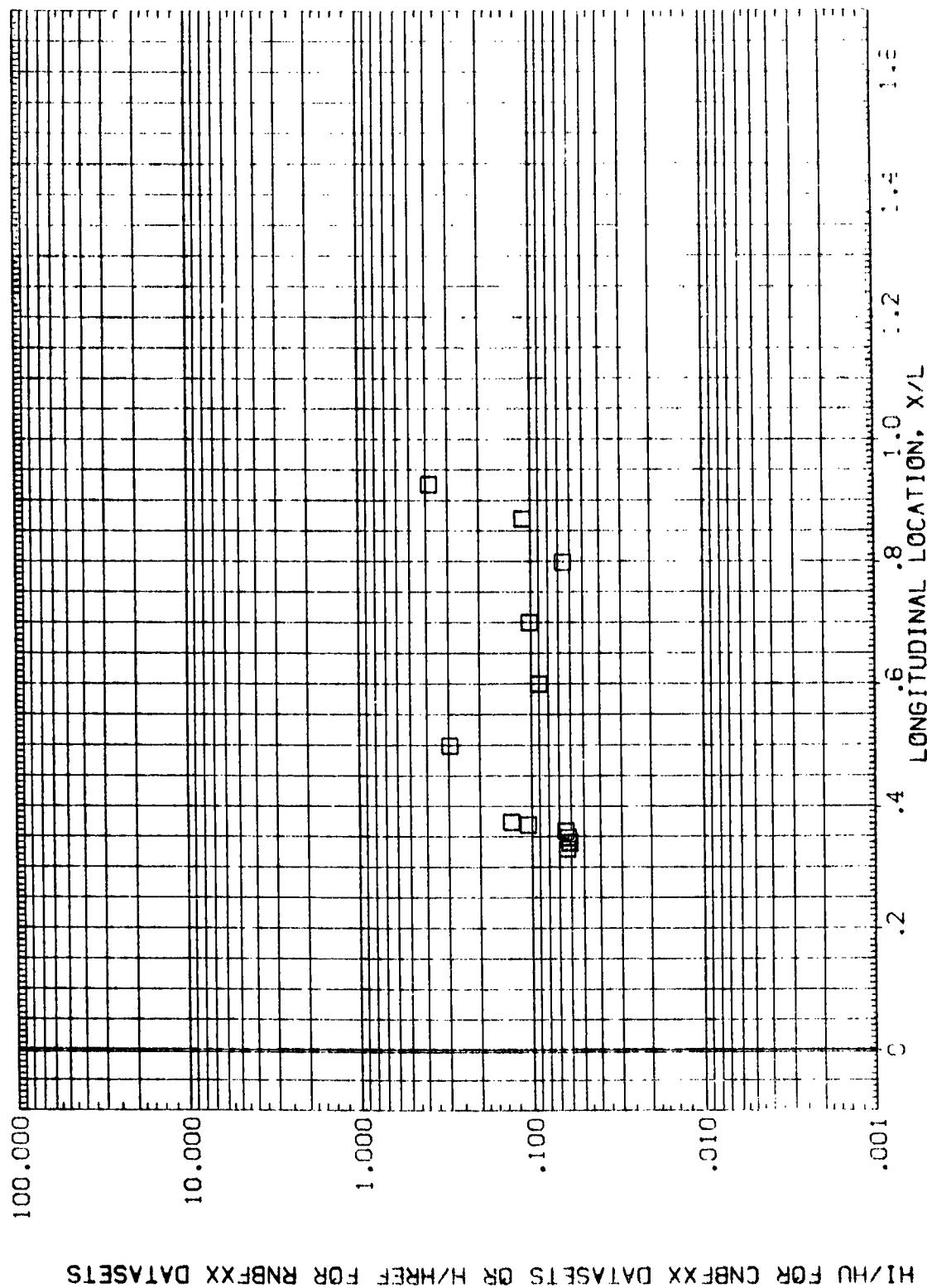


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 197.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (CNBF15)      DATA NOT AVAILABLE  
 (RNBFI5)      ARC3-5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI8)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 -5.000      .000      5.000  
 -5.000      .300      5.000  
 -5.000      .000      5.000

EXT TANK

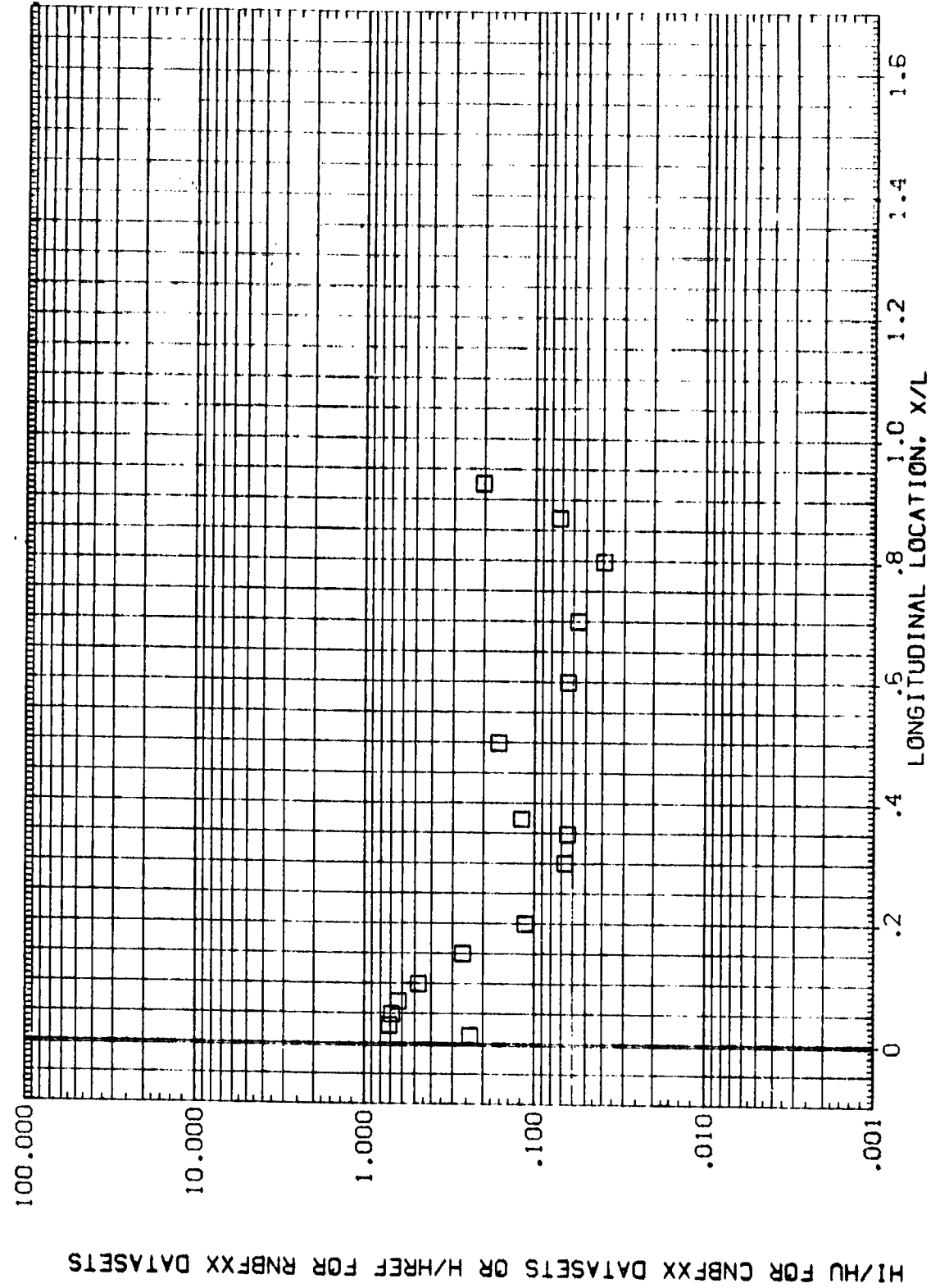


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RV/L

(CMBF15)      IH-48 (HI/HU LABELED H/HREF) ET INTERFERENCE DAT      -5.000      .000      5.000

(RMBF15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000

(RMBF18)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

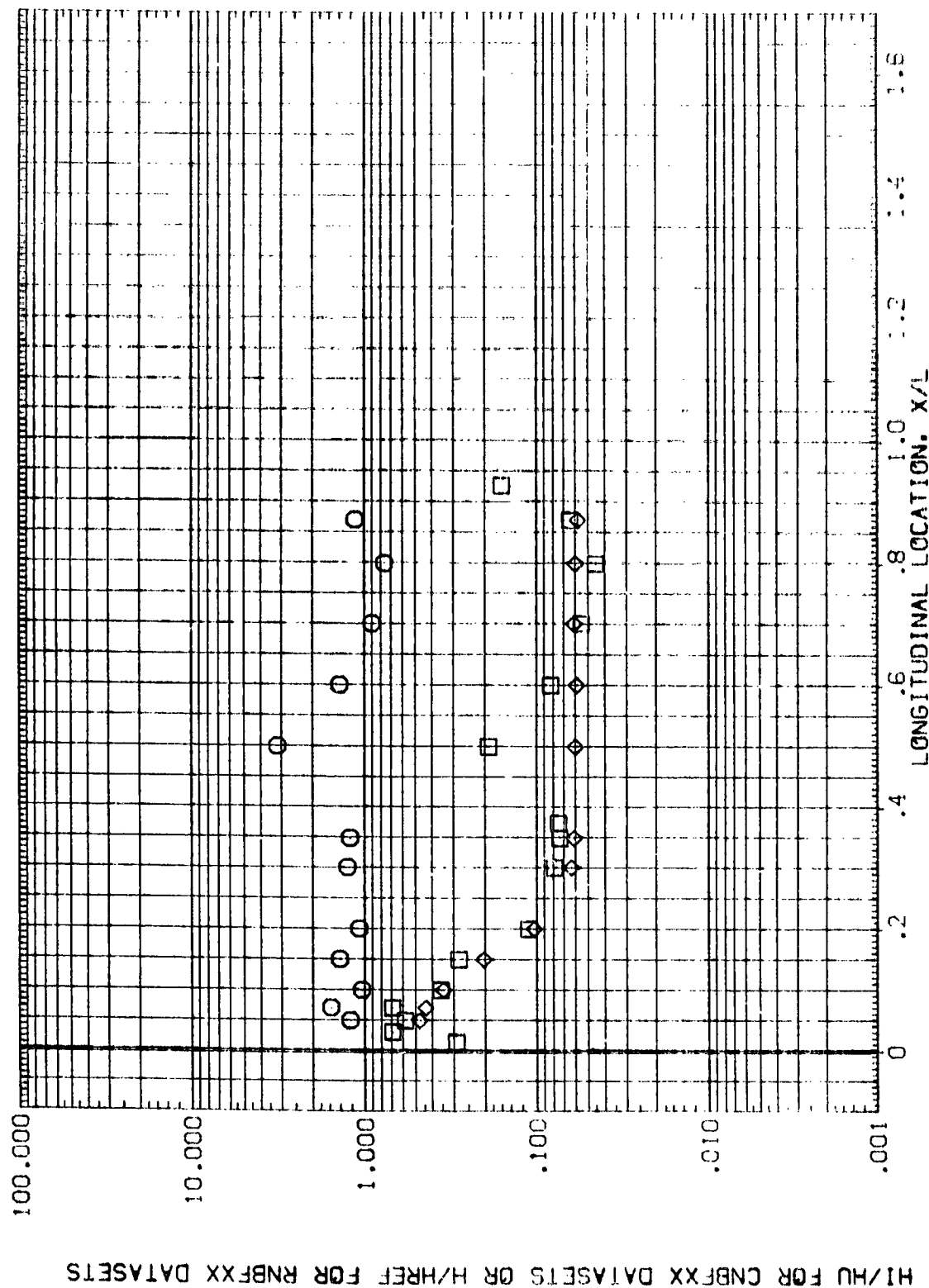


FIG. 05 EFFECT OF ORBITER PROXIMITY ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RE/L
(RMBF07)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RMBF02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RMBF17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000

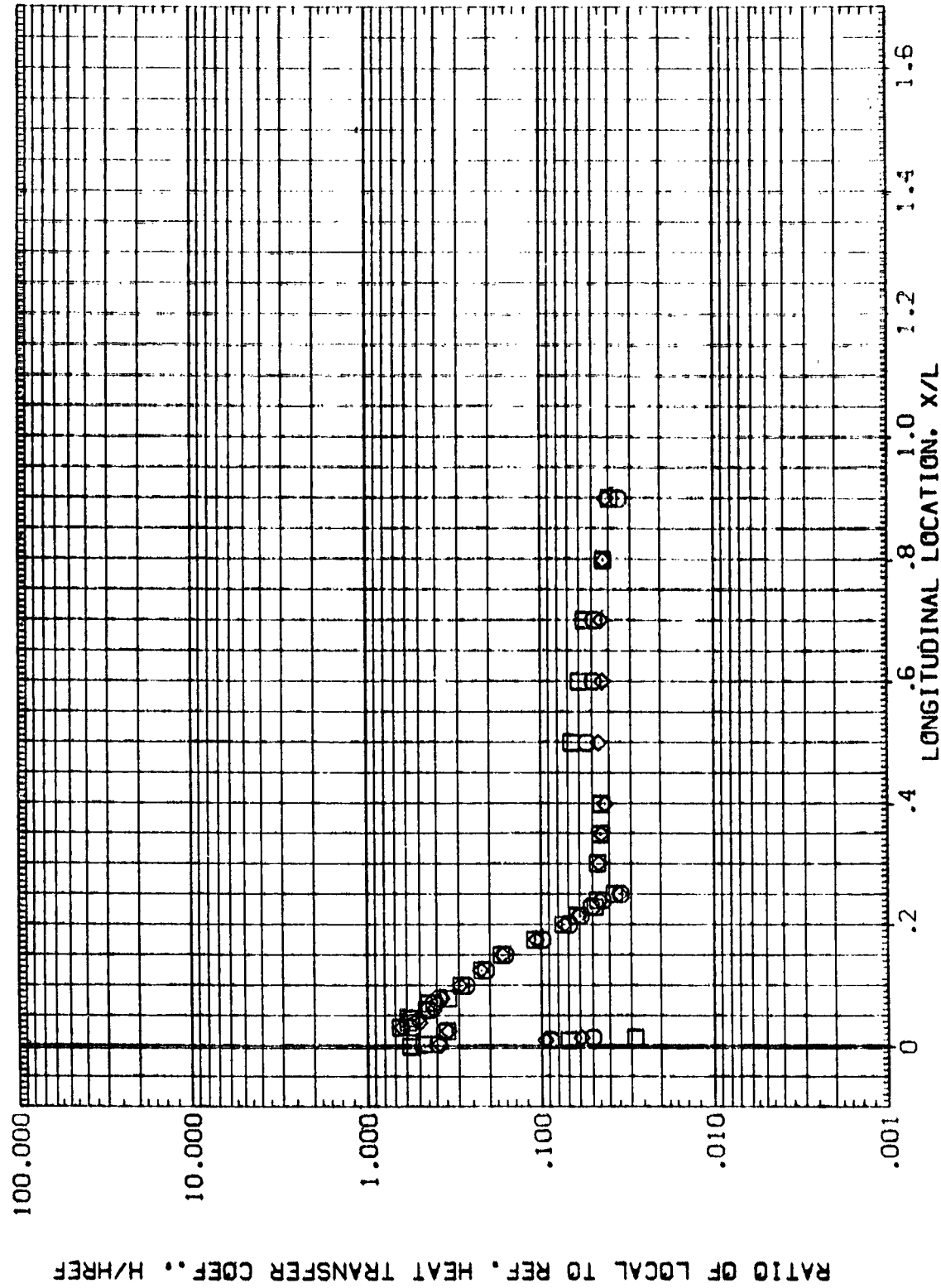


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RMBF07) ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP/INTS EXT TANK  
 (RMBF02) ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RMBF17) DATA NOT AVAILABLE

ALPHA BETA RM/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

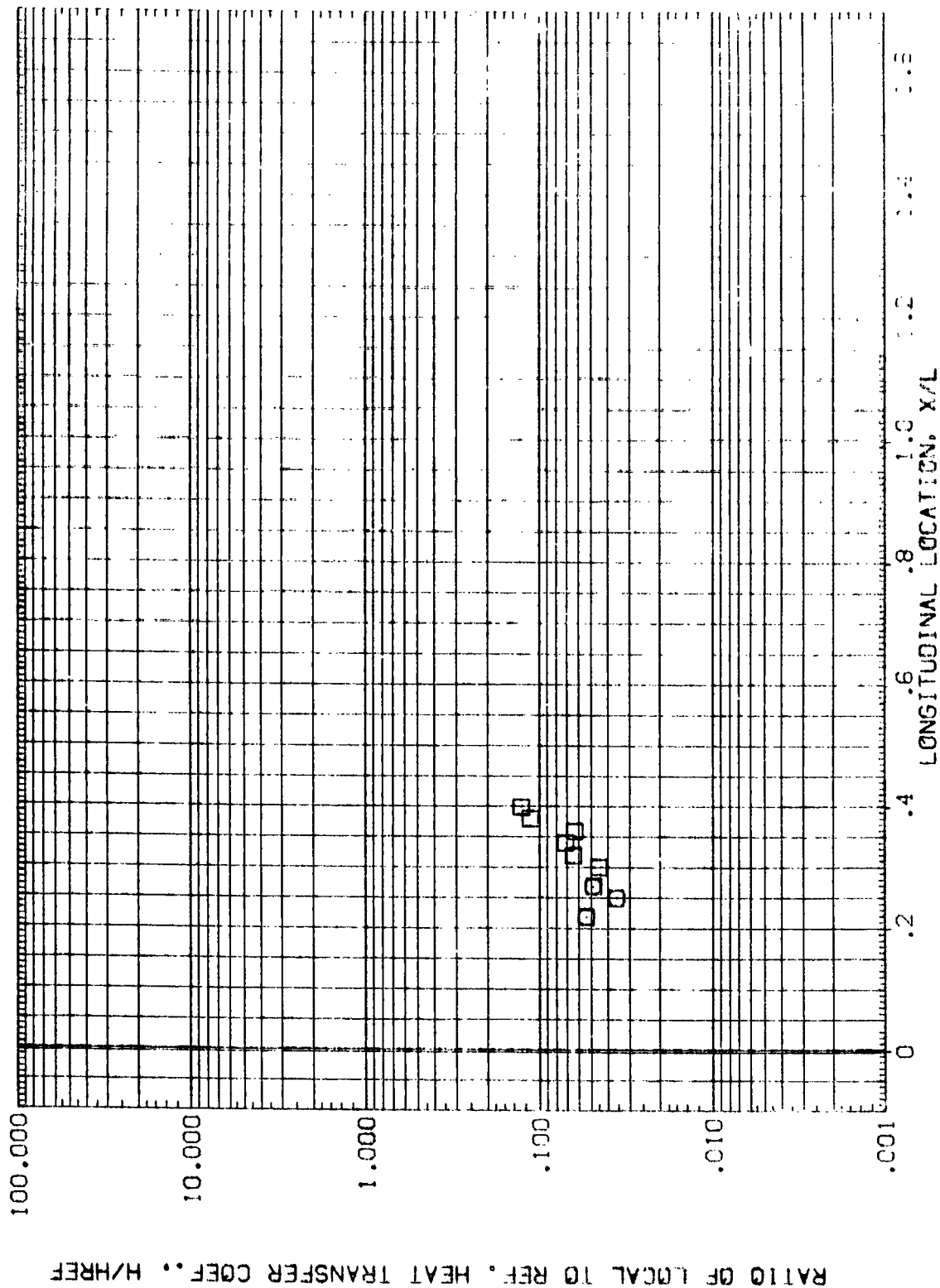


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB07)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RNB02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNB17)	ARC3.5-211(IH48)DET /NIPPLE/CLEAN	.000	.000	5.000

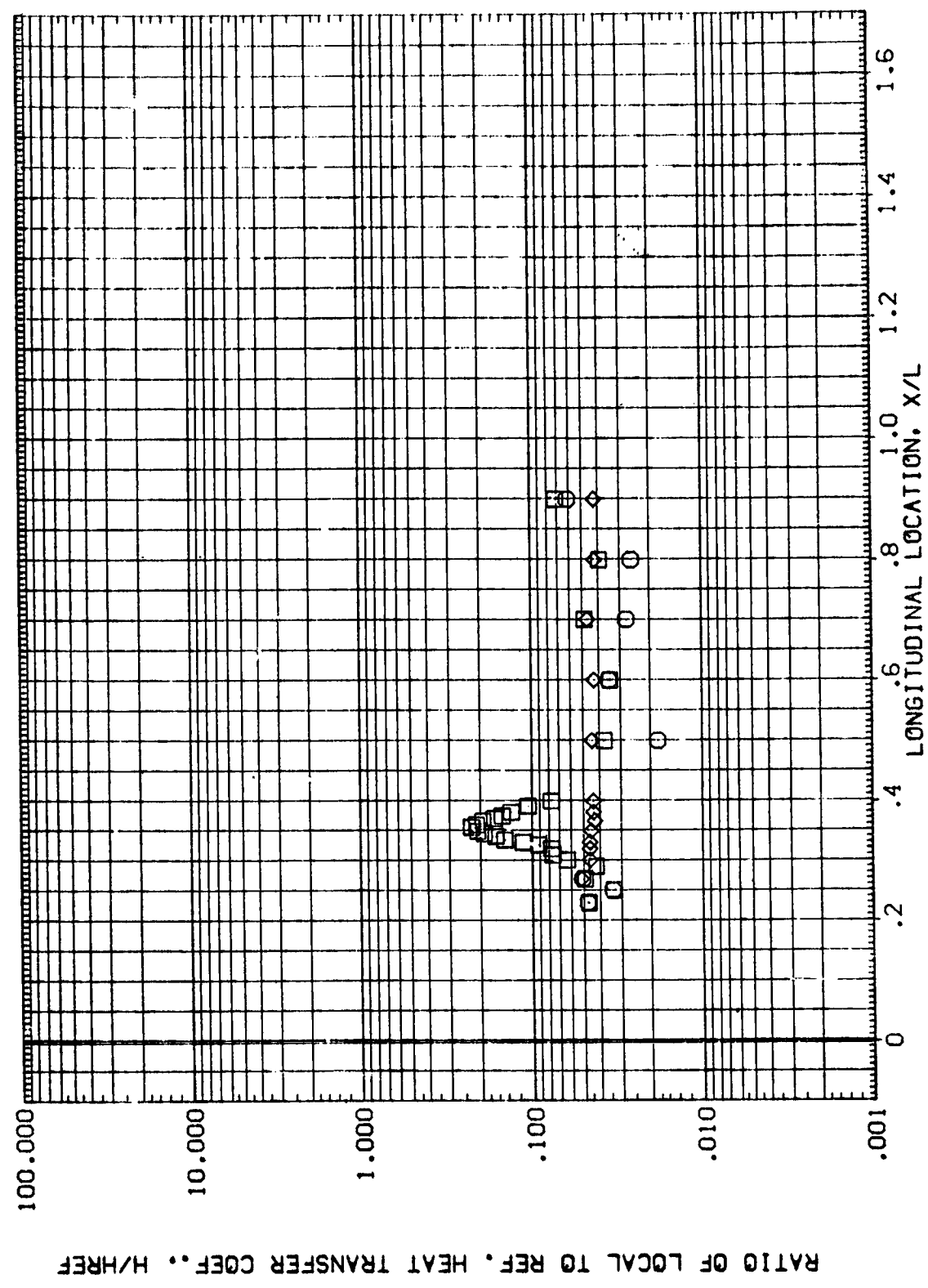


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RM/L

(RNBFO7)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK      .000      .000      5.000

(RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000

(RNBFI7)      DATA NOT AVAILABLE

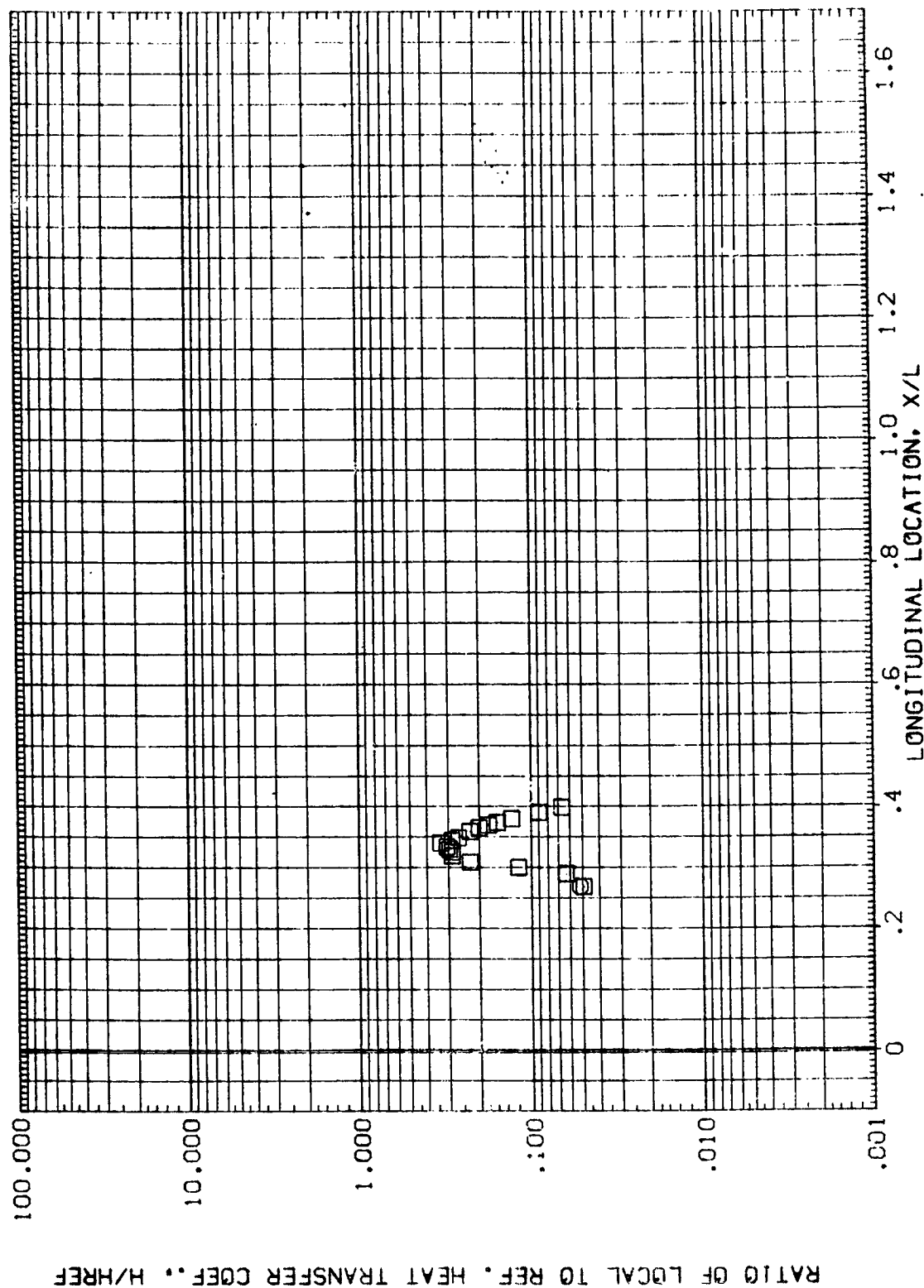


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO7)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNBFI7)	ARC3.5-211(IH48)JET /NIPPLE/CLEAN	.000	.000	5.000

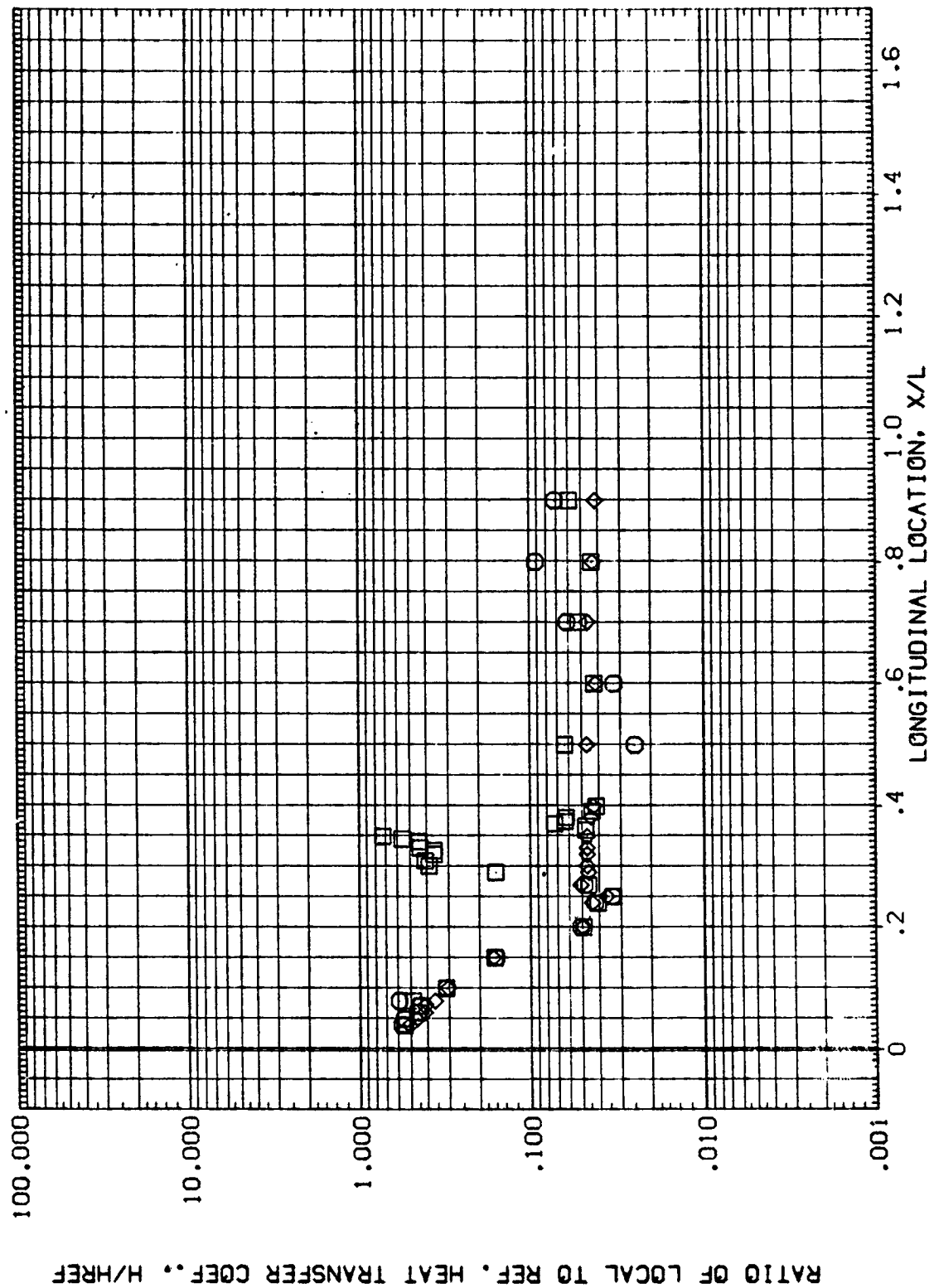


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO7)      ARC3.3-211(IH48)DIS/NIPPLE/P/TRIP/INTS EXT TANK      .000      .000      5.000

(RNBFO2)      ARC3.5-211(IH48)DIS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000

(RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

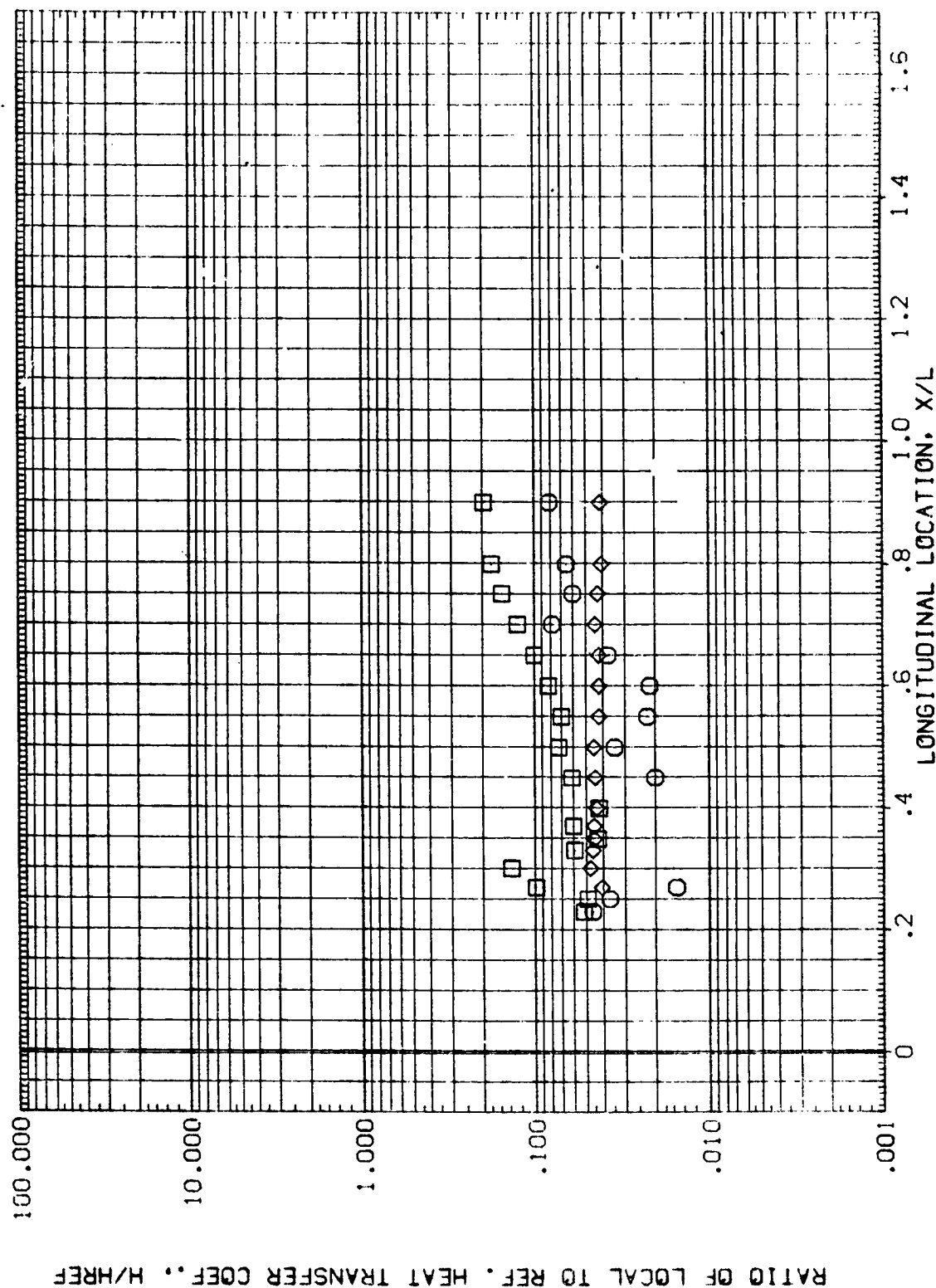


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 112.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO7)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(G+S) EXT TANK	.000	.000	5.000
(RNBFI7)	DATA NOT AVAILABLE			

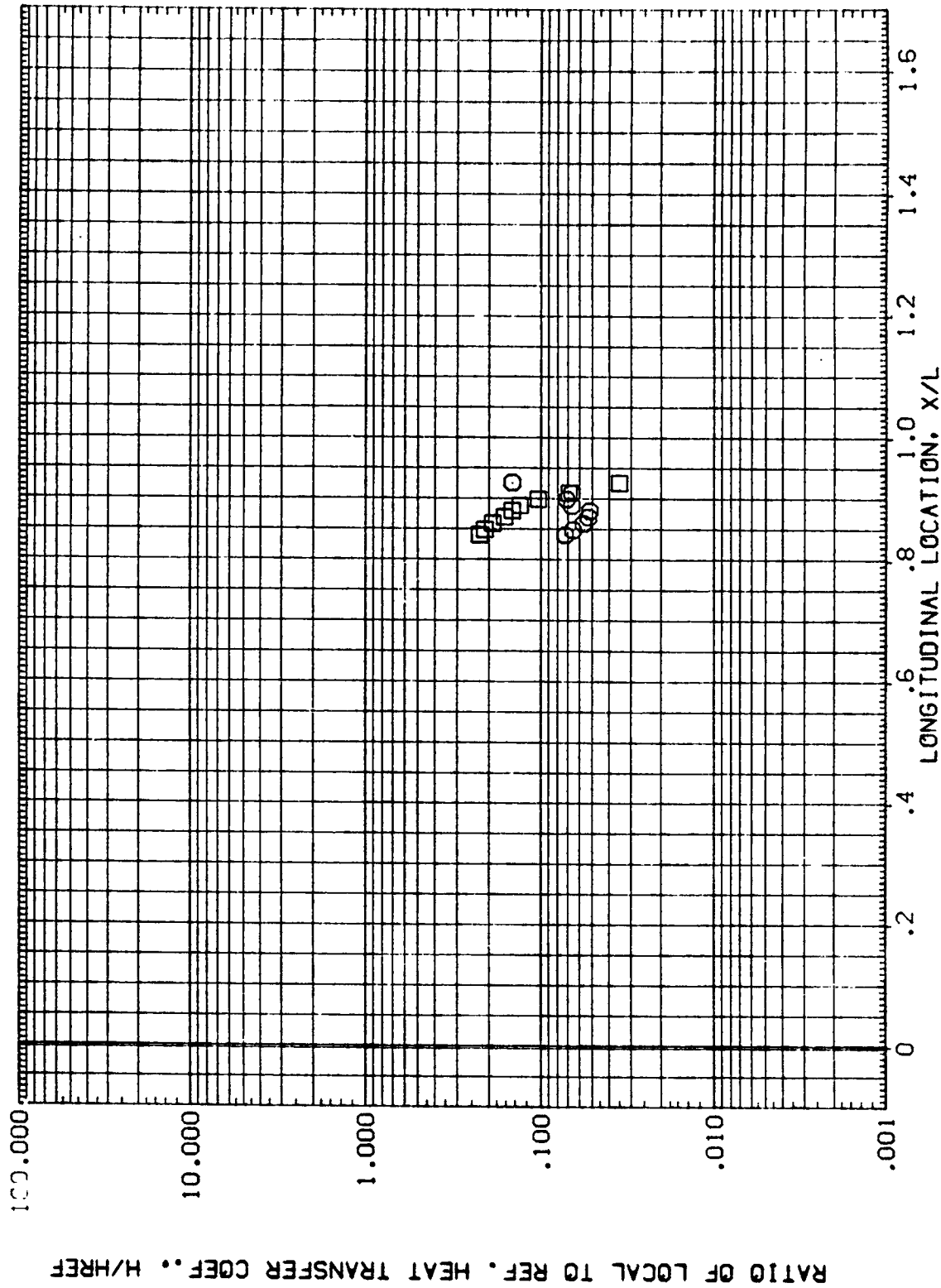


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB07)      ARC3.5-211(I48)OTS/NIPPLE/P/TRIP/INTS EXT TANK      .000      .000      5.000

(RNB02)      ARC3.5-211(I48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000

(RNB17)      DATA NOT AVAILABLE

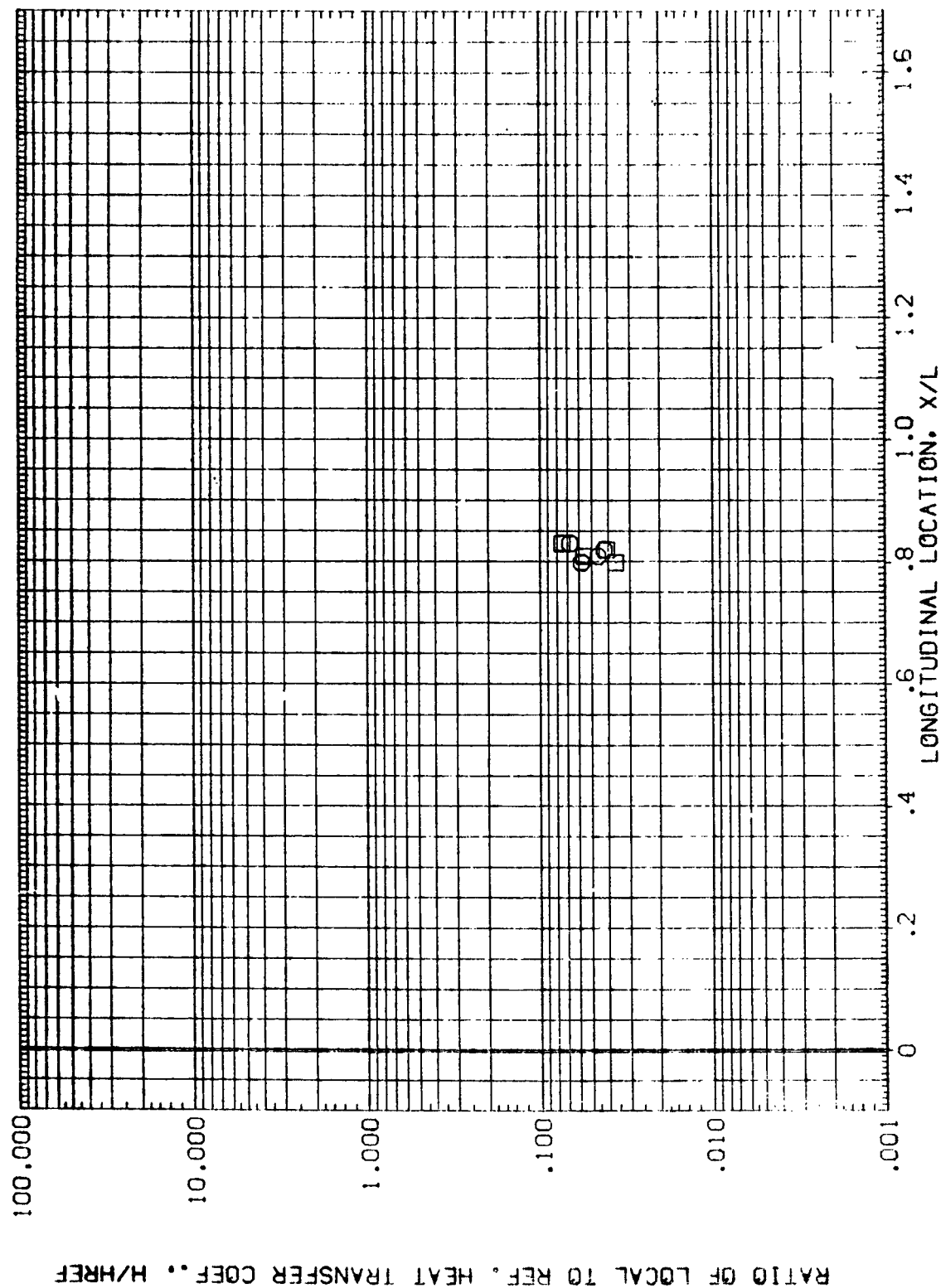


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 129.300



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO7)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNBFI7)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000

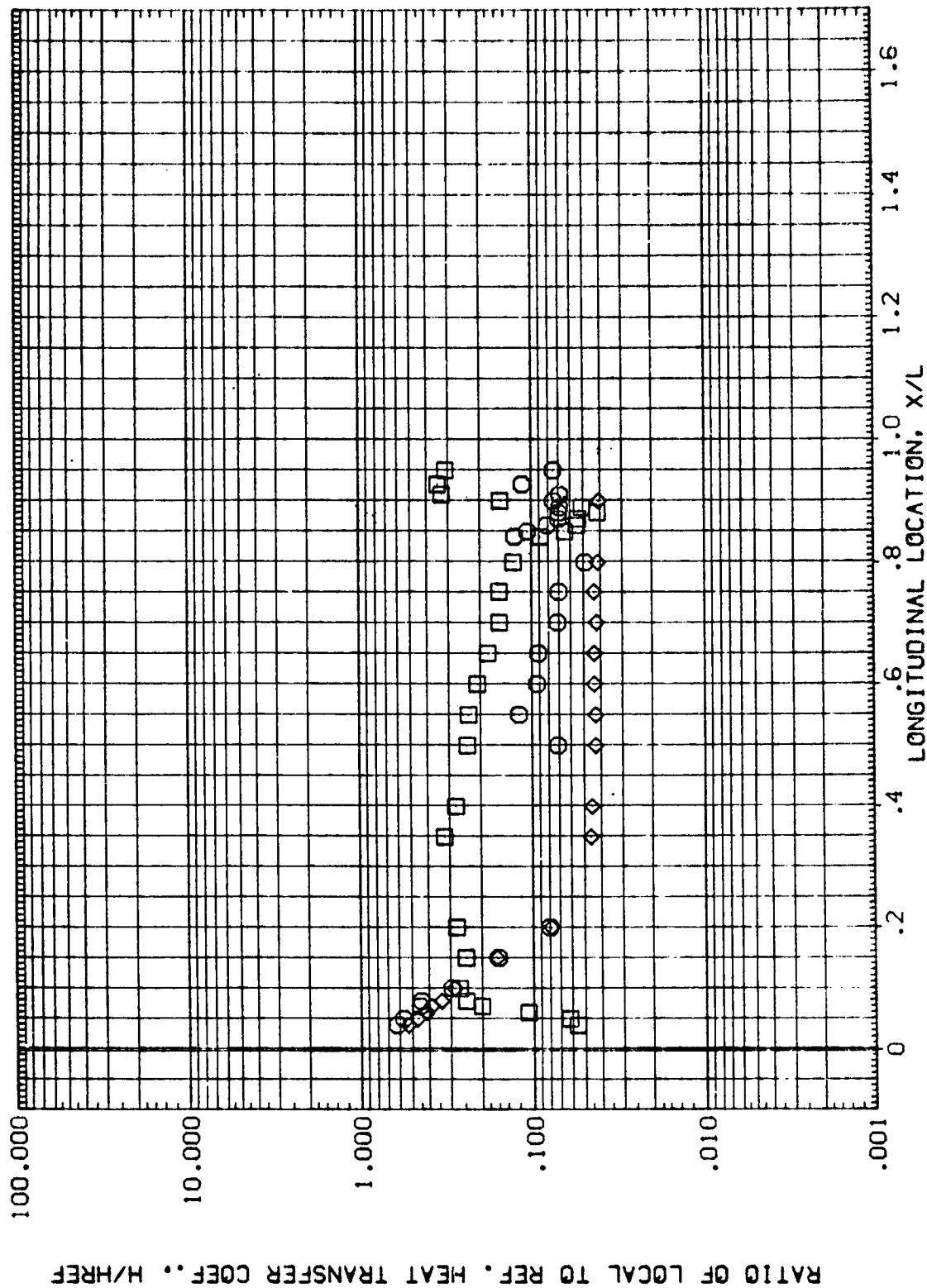


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO7)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK      .000      .000      5.000

(RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000

(RNBFI7)      DATA NOT AVAILABLE

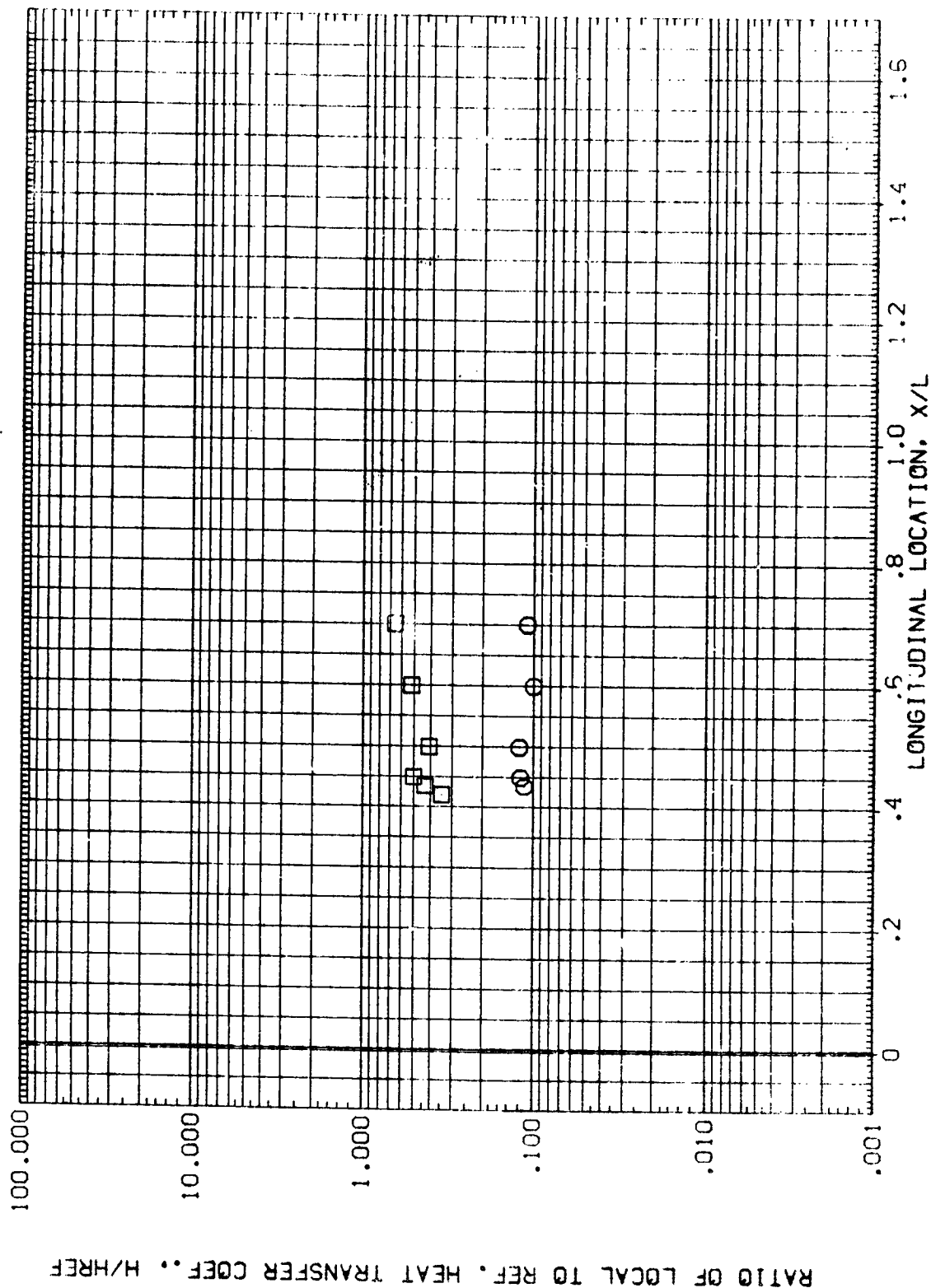


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO7)  
(RNBFO2)  
(RNBFI7)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK

ALPHA BETA RN/L  
.000 .000 5.000  
.000 .000 5.000  
.000 .000 5.000

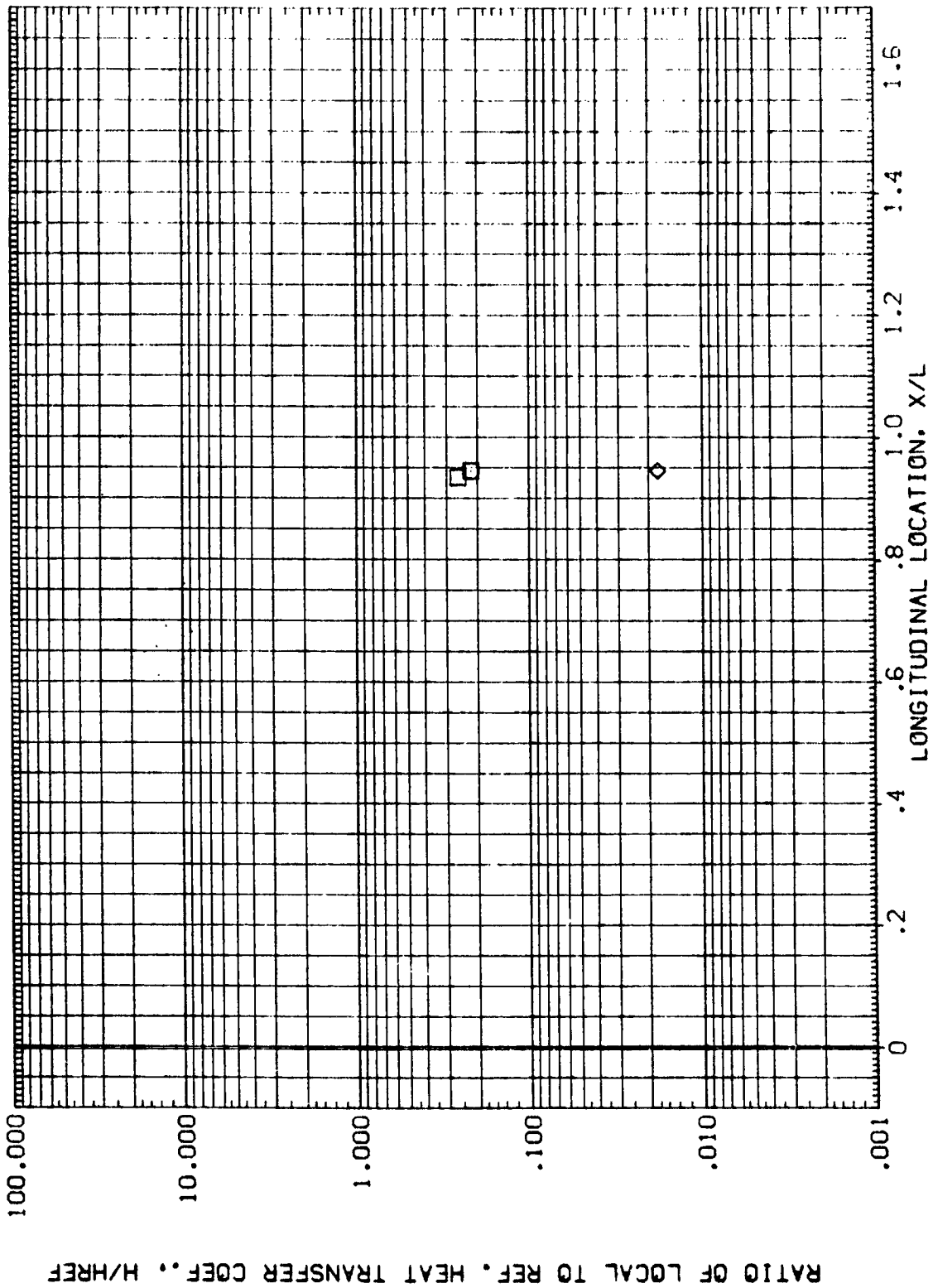


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNB07) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK  
 (RNB02) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
 (RNB17) DATA NOT AVAILABLE

ALPHA BETA RW/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

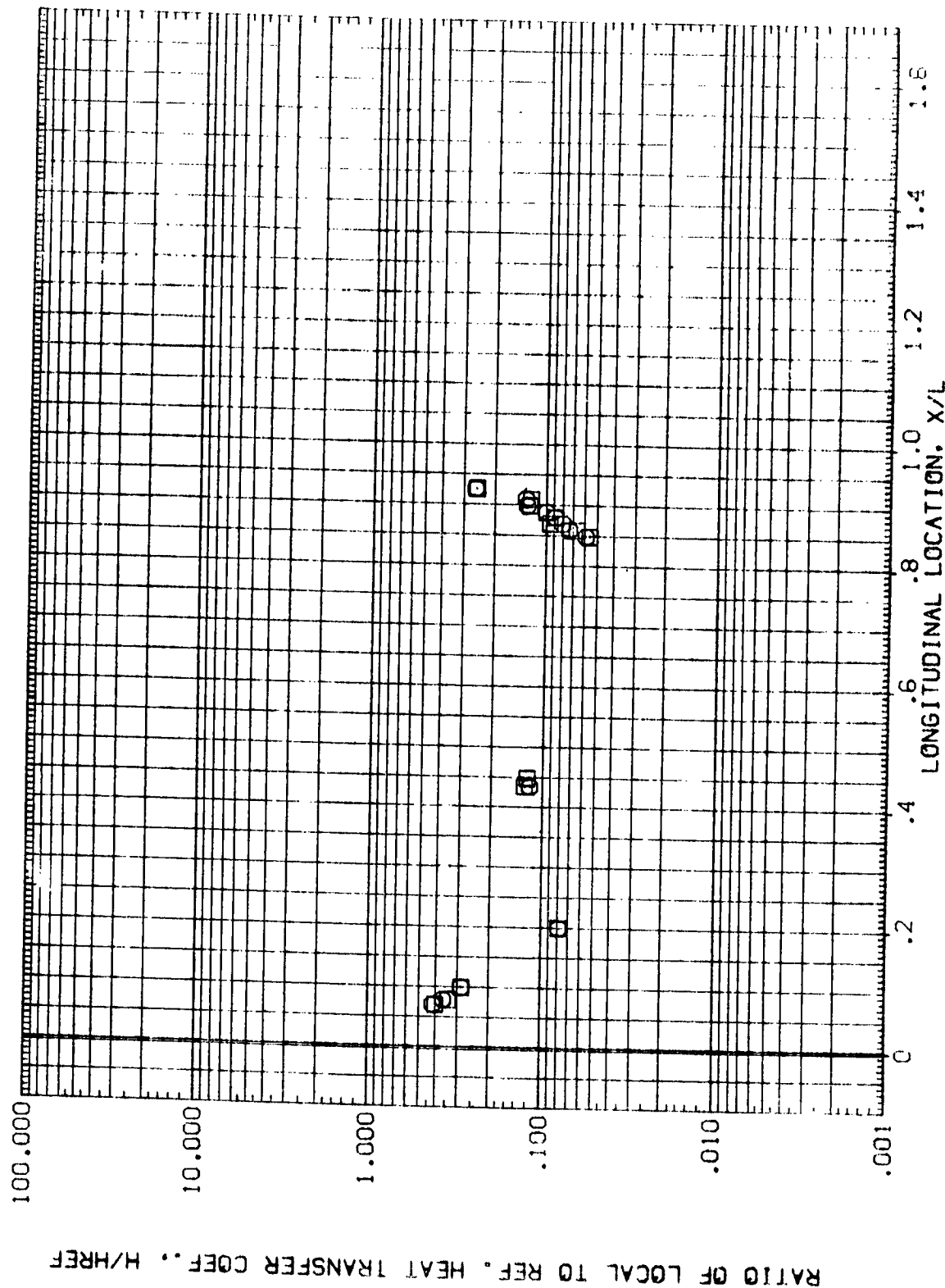


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 157.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO7)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNBFI7)	DATA NOT AVAILABLE			

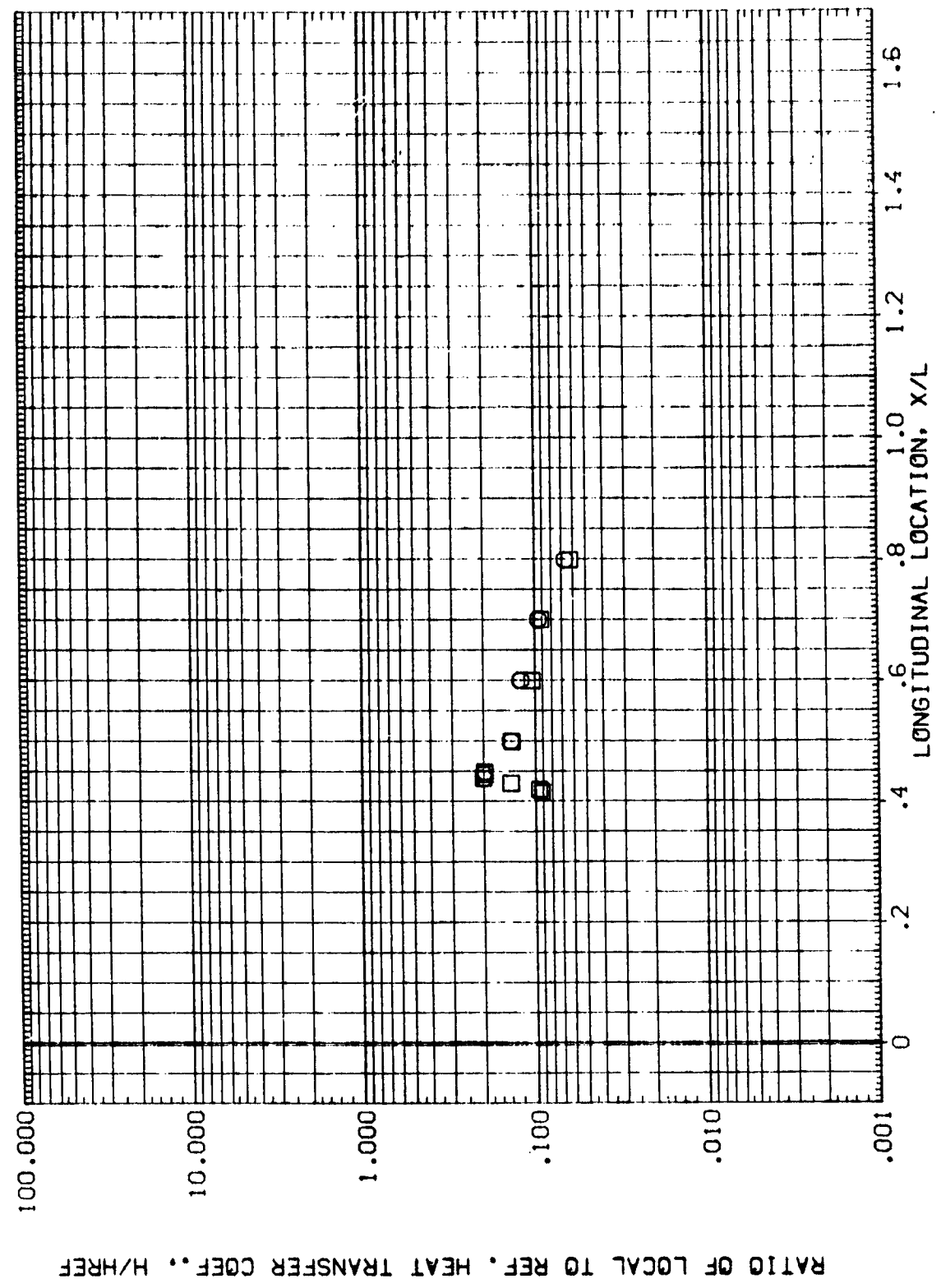


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALP-HA      BETA      RN/L

(RMBF07)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK      .000      .000      5.000

(RMBF02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000

(RMBF17)      DATA NOT AVAILABLE

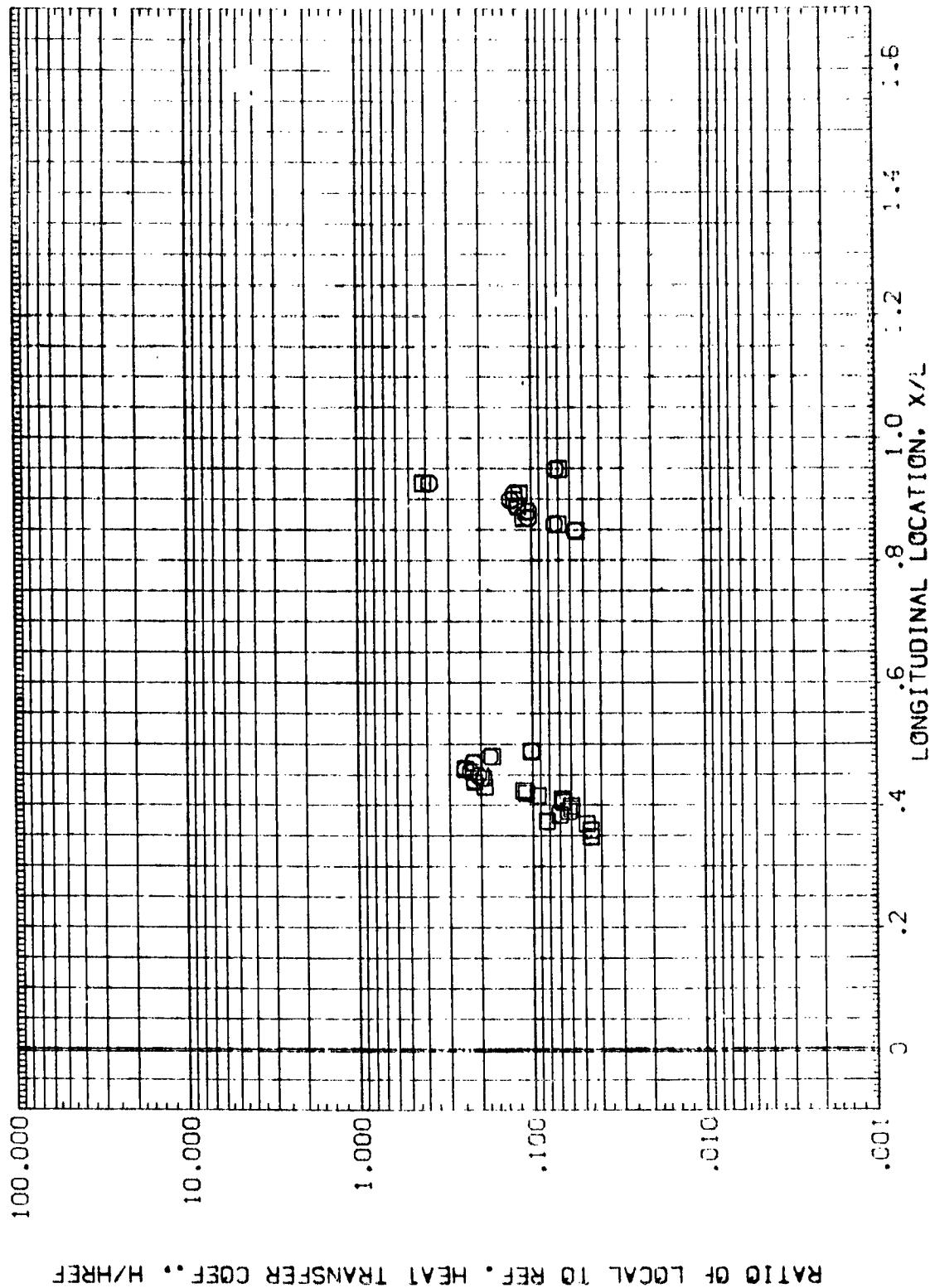


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 168.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RMBF07)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS	.000	.000	5.000
(RMBF02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	5.000
(RMBF17)	ARC3.5-211(IH48)JET /NIPPLE/CLEAN	.000	.000	5.000

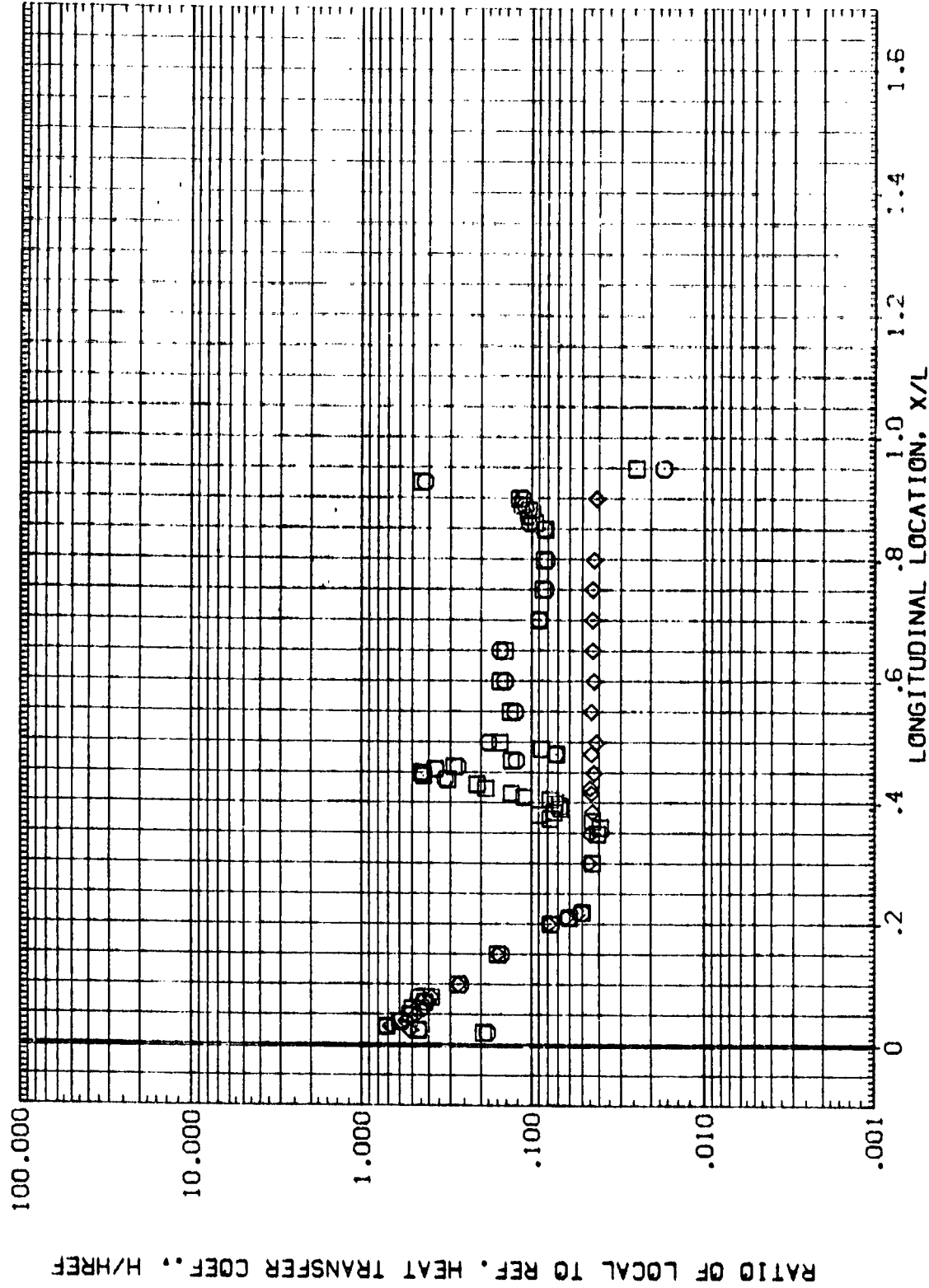


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RN L

(RUBF07) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK .000 .000 5.000

(RUBF02) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK .000 .000 5.000

(RUBF17) ARC3.5-211(IH48)E1/NIPPLE/CLEAN EXT TANK .000 .000 5.000

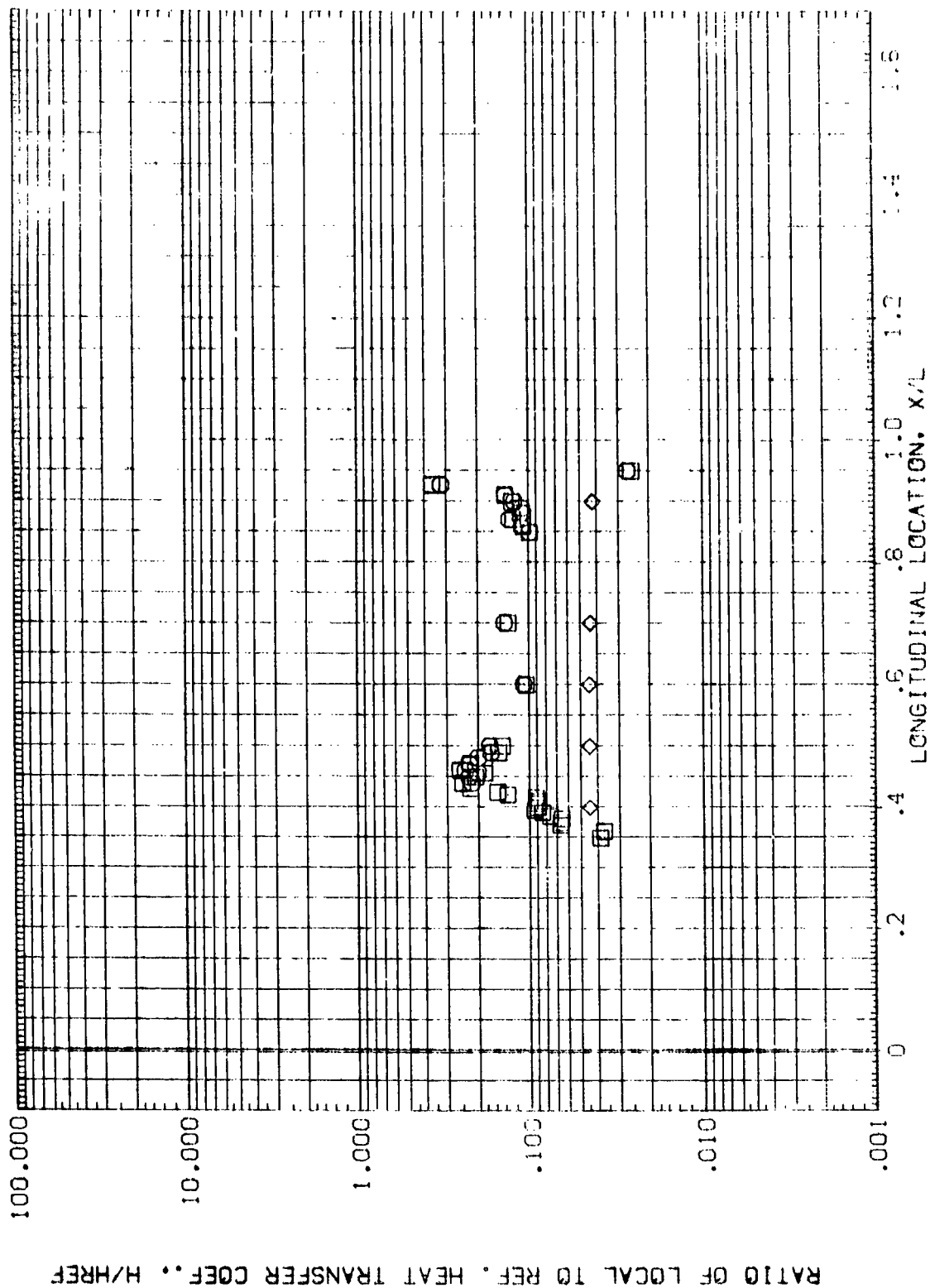


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 FRI = 191.250



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO7)	ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RNBFO2)	ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(RNBFI7)	DATA NOT AVAILABLE			

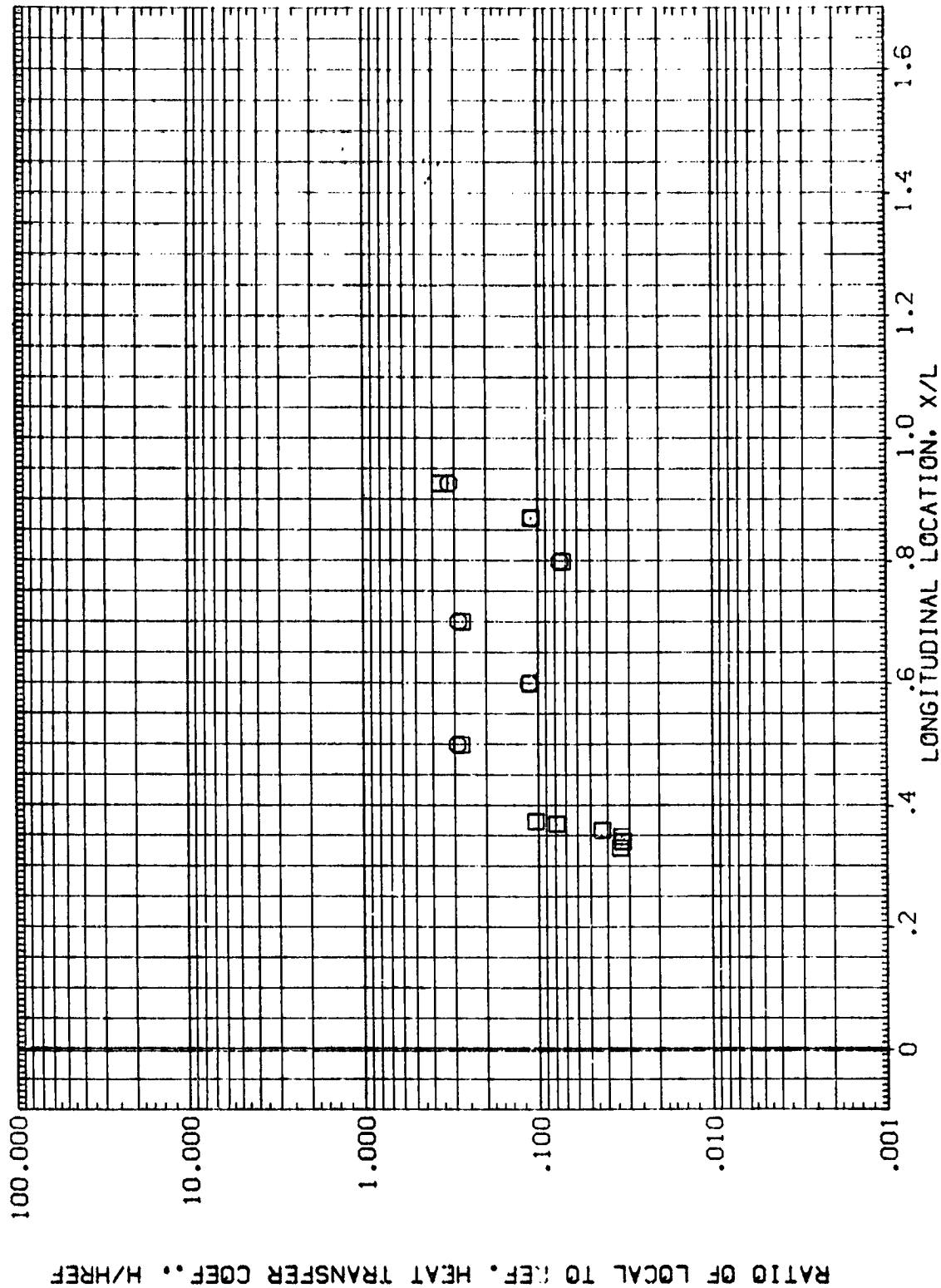


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 197.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNBFO7)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK  
 (RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI7)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

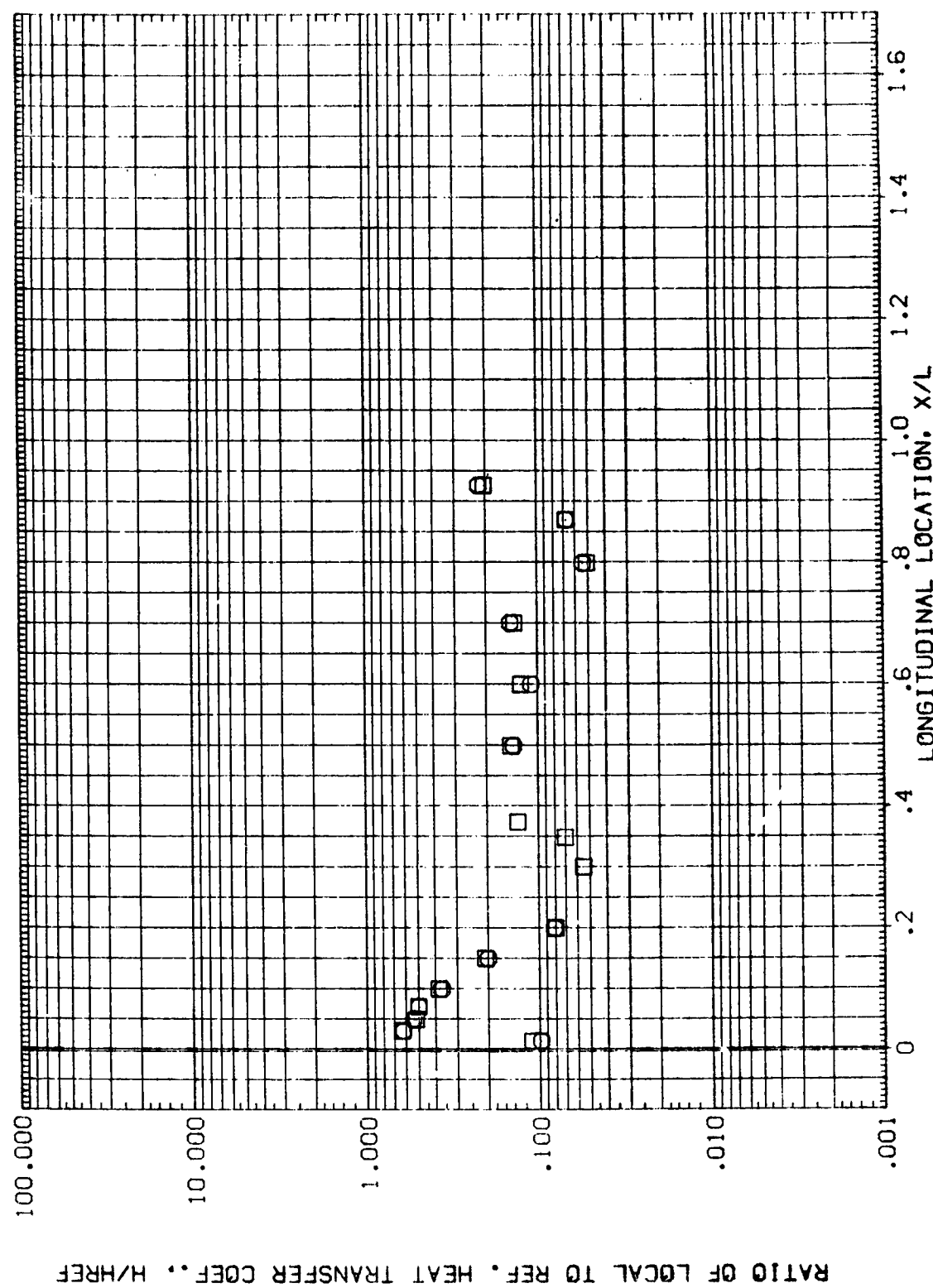


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB07)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK	.000	.000	5.000
(RNB02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNB17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000

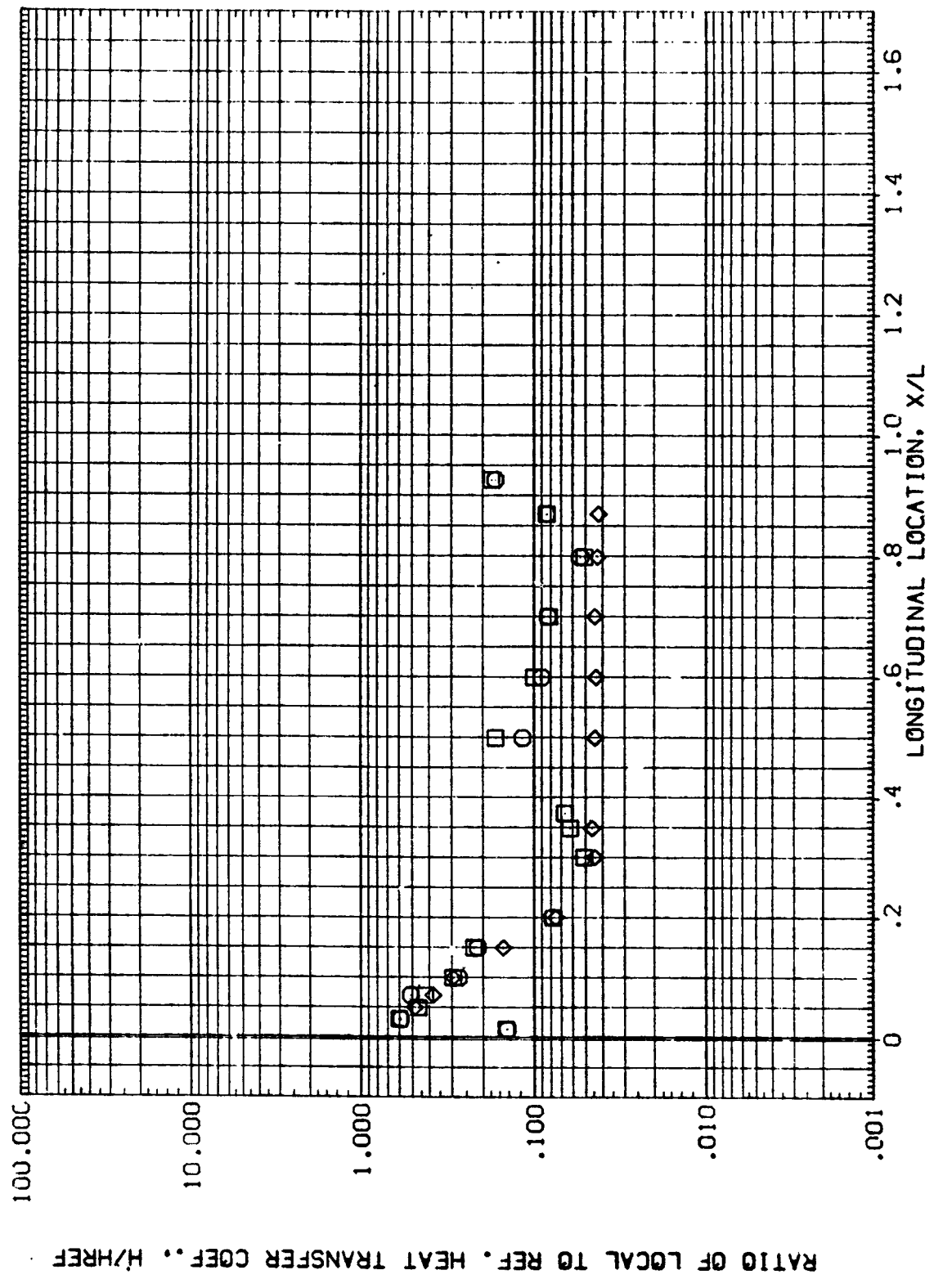


FIG. 06 EFFECT OF INTERSTAGE ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RMBF03)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK	-5.000	.000	5.000
(RMBF02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK	.000	.000	5.000
(RMBF04)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK	5.000	.000	5.000
(RMBF05)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK	10.000	.000	5.000

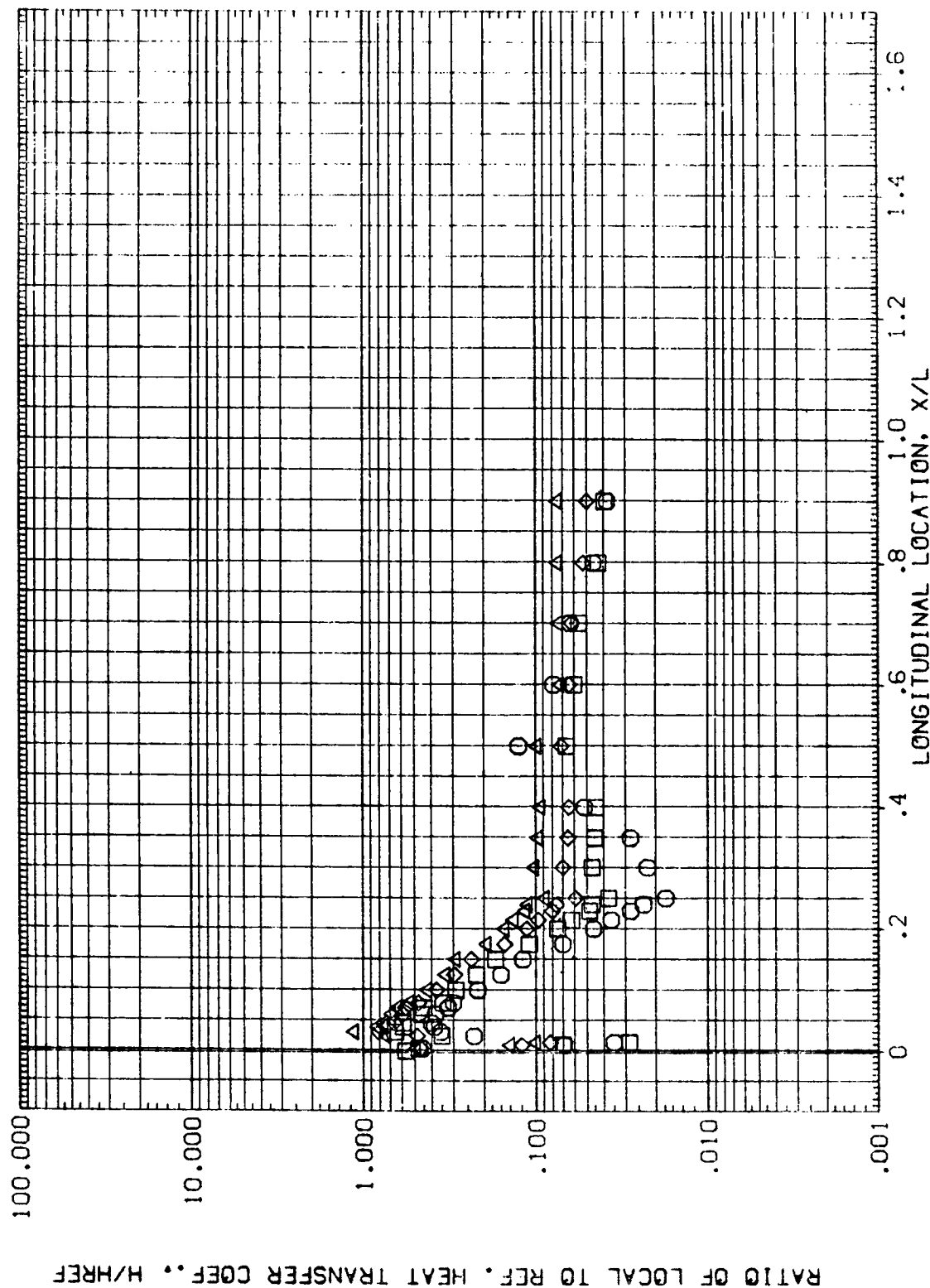


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	10.000	.000	5.000

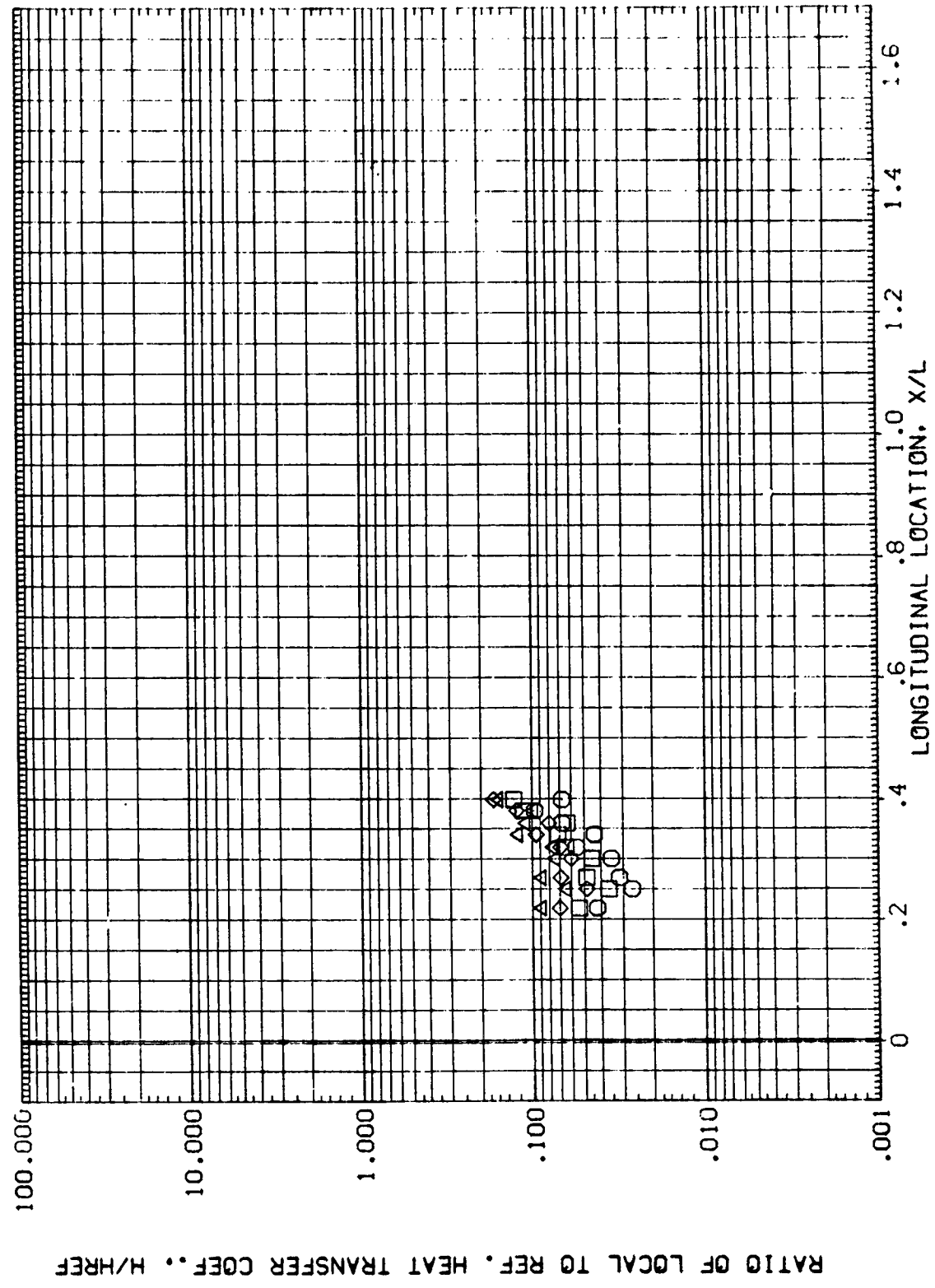


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

DATA SET SYMBOL  
(RNBFO3)  
(RNBFO2)  
(RNBFO4)  
(RNBFO5)

CONFIGURATION DESCRIPTION  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK

ALPHA BETA RN/L  
-5.000 .000 5.000  
5.000 .000 5.000  
10.000 .000 5.000

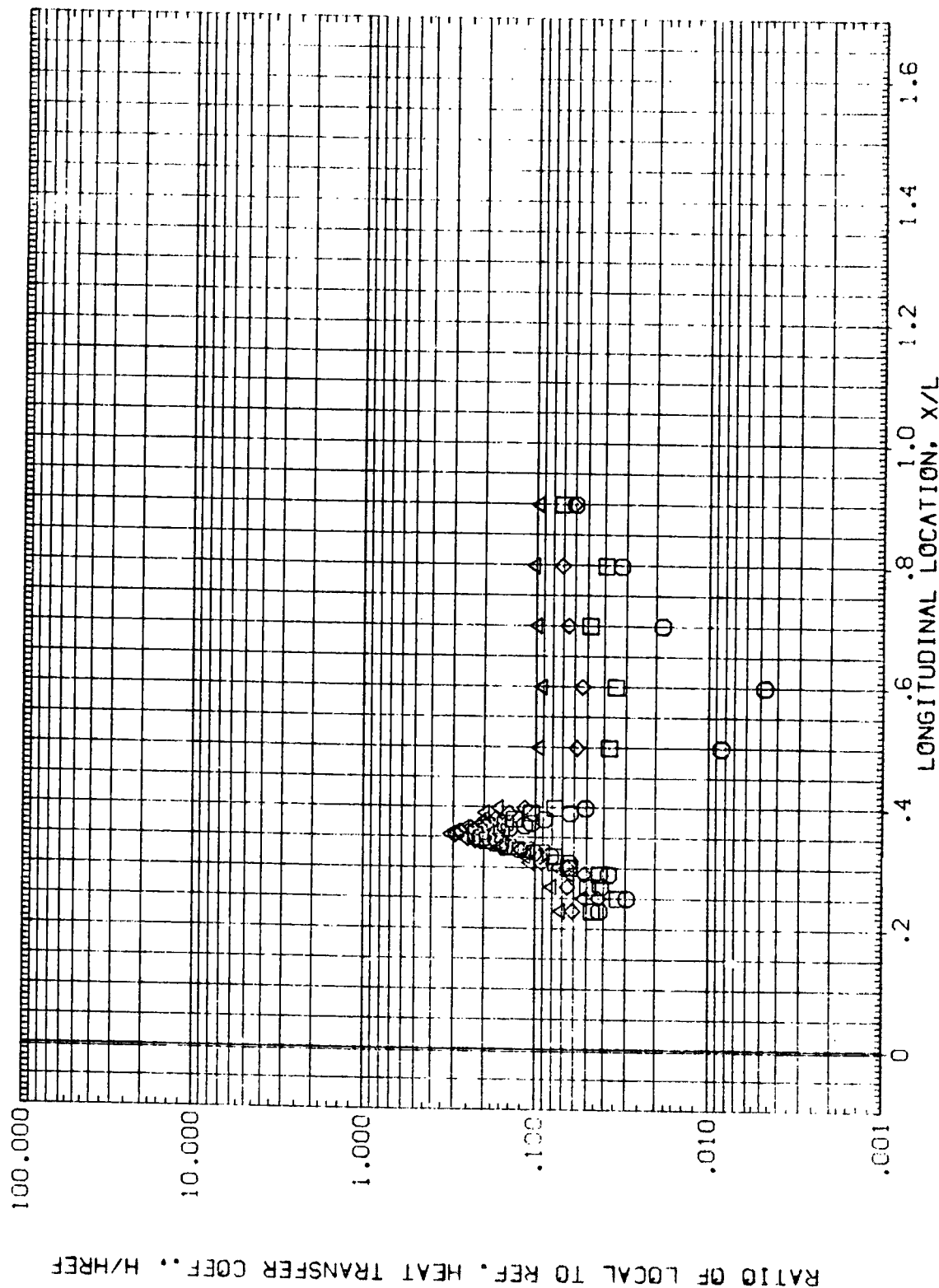


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	10.000	.000	5.000

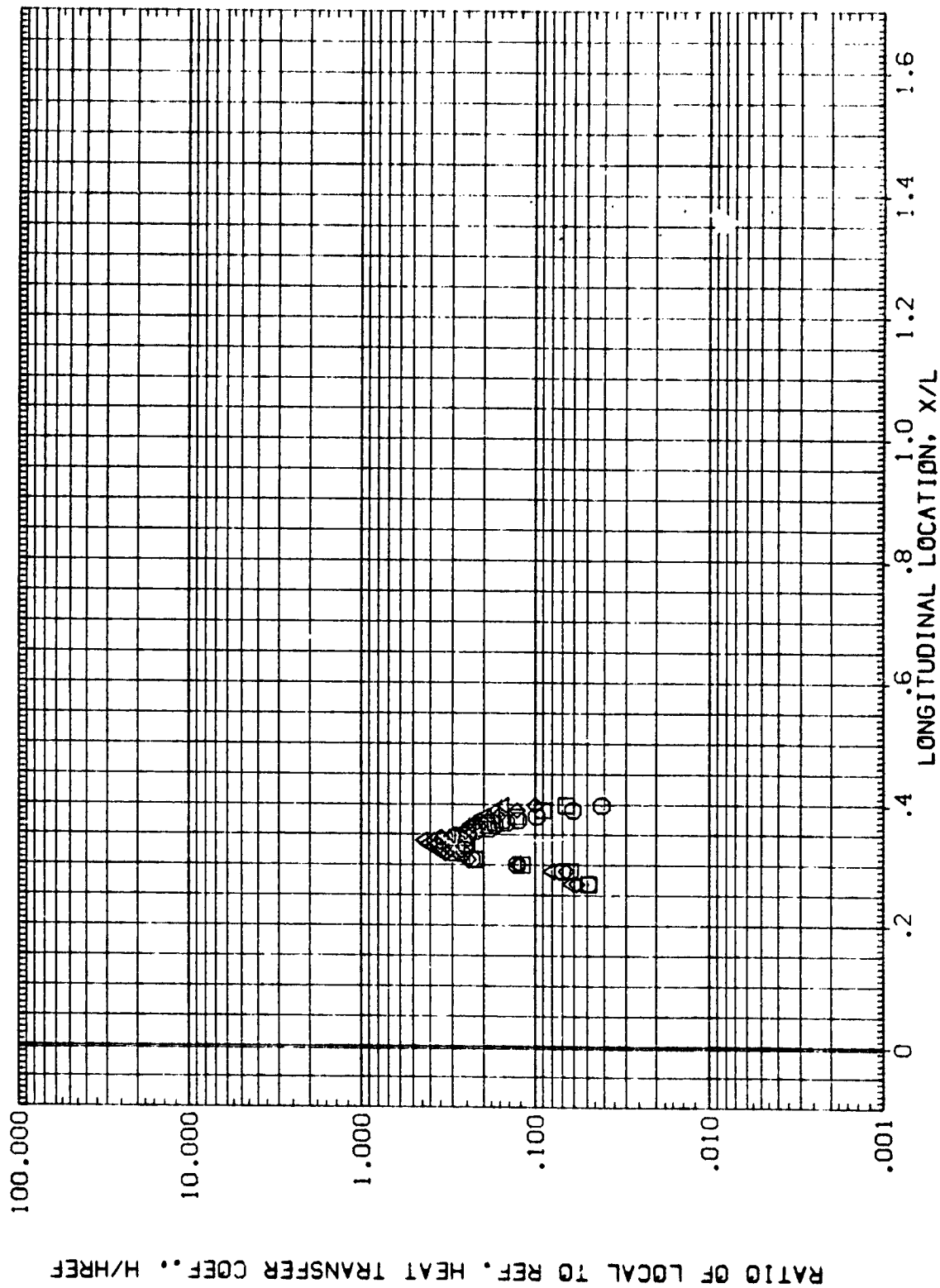


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	10.000	.000	5.000

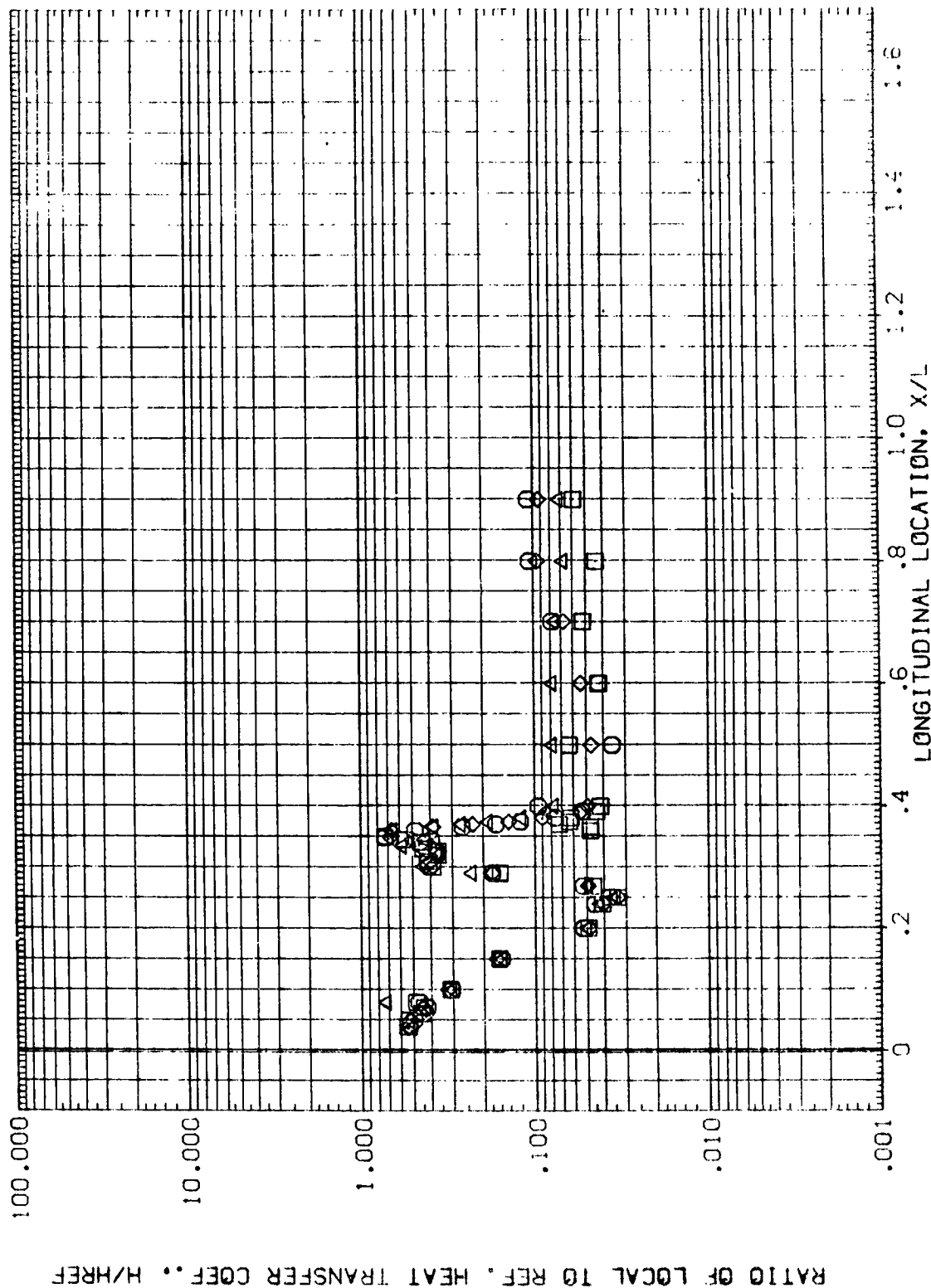


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 90.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RV/L
(RNBFO3)	ARC3.5-211(I-48)OTS/NIPPLE/P/TRIP(O+S)	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(I-48)OTS/NIPPLE/P/TRIP(O+S)	.000	.000	5.000
(RNBFO4)	ARC3.5-211(I-48)OTS/NIPPLE/P/TRIP(O+S)	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(I-48)OTS/NIPPLE/P/TRIP(O+S)	10.000	.000	5.000

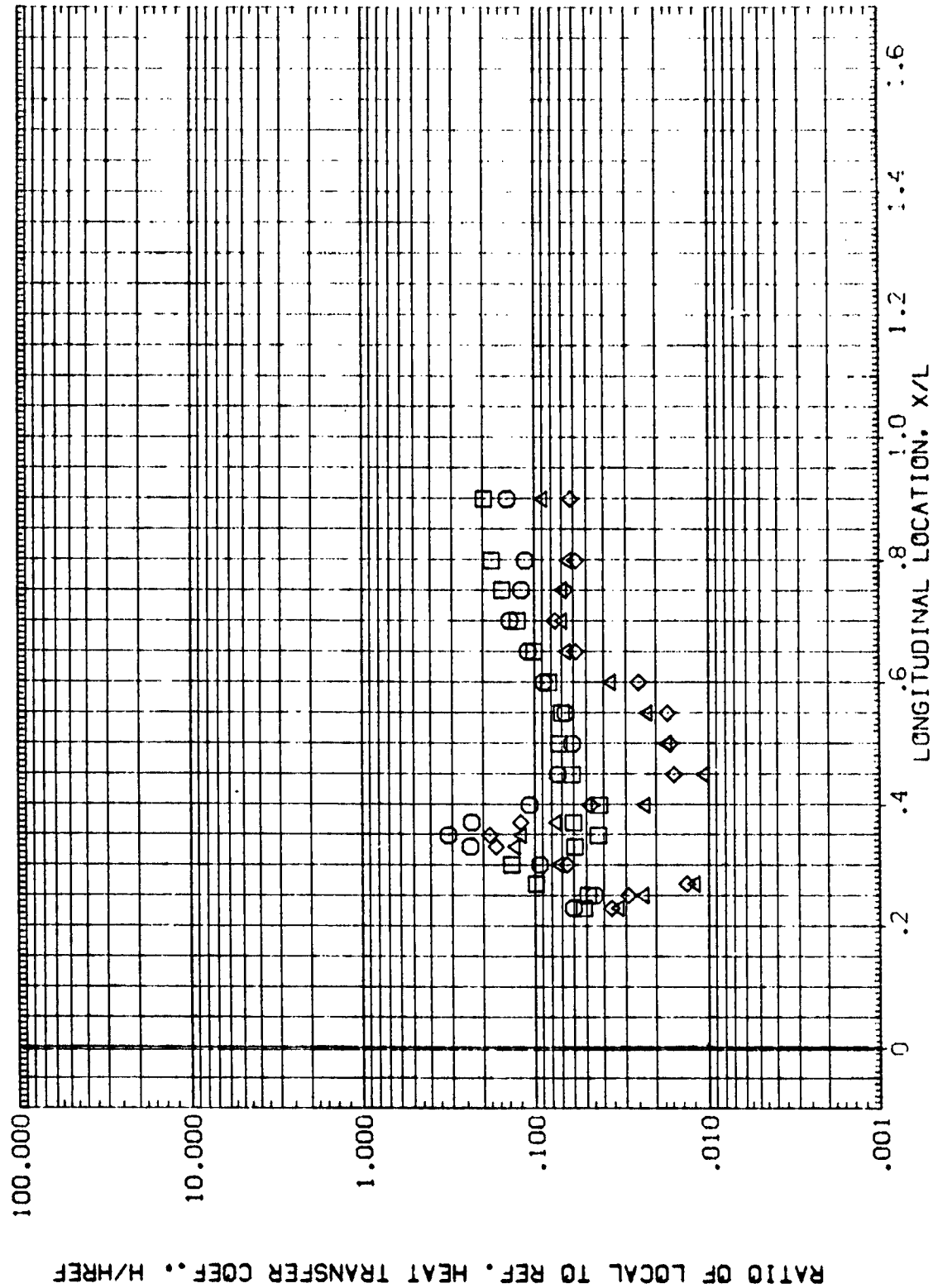


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	10.000	.000	5.000

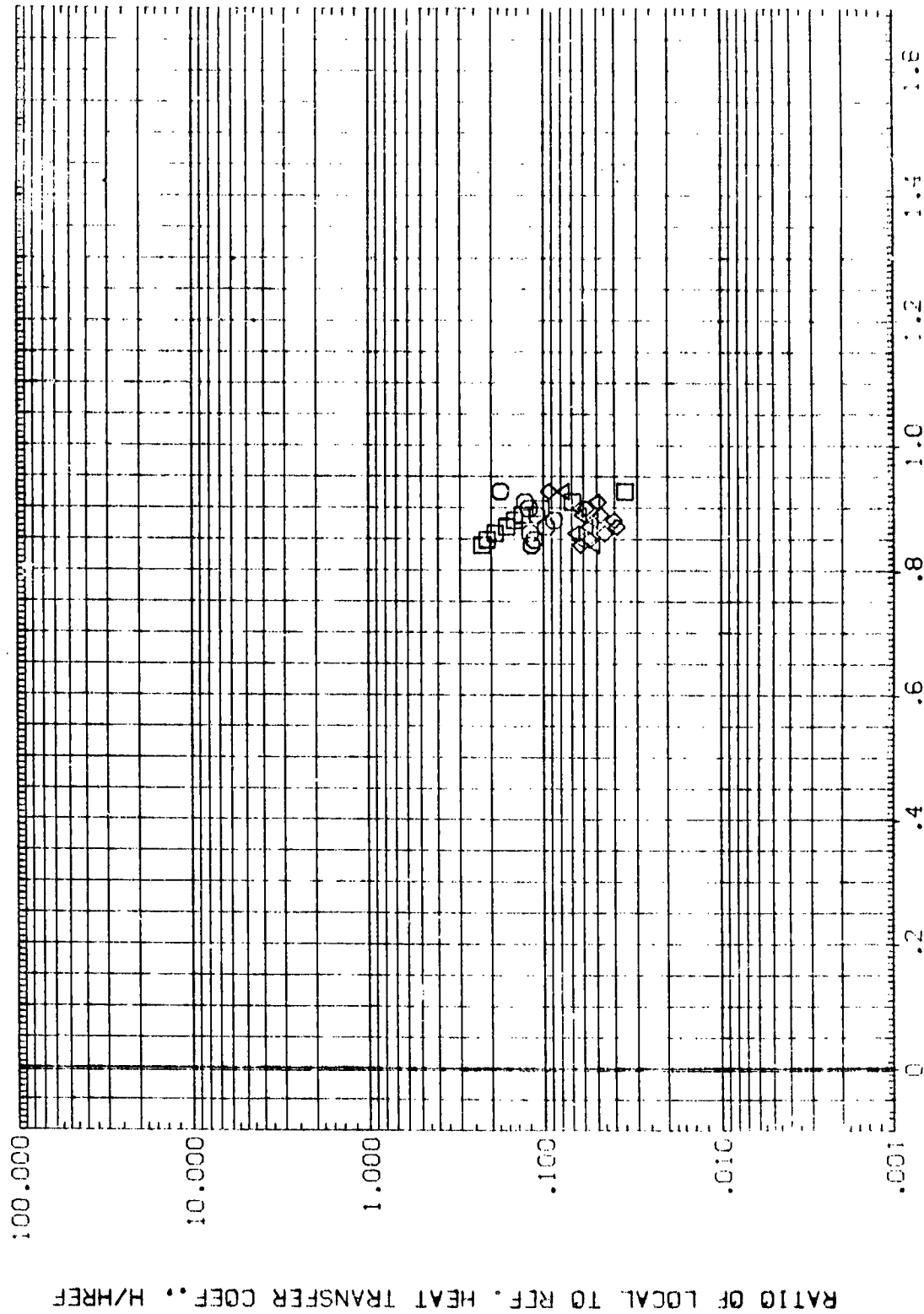


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	10.000	.000	5.000

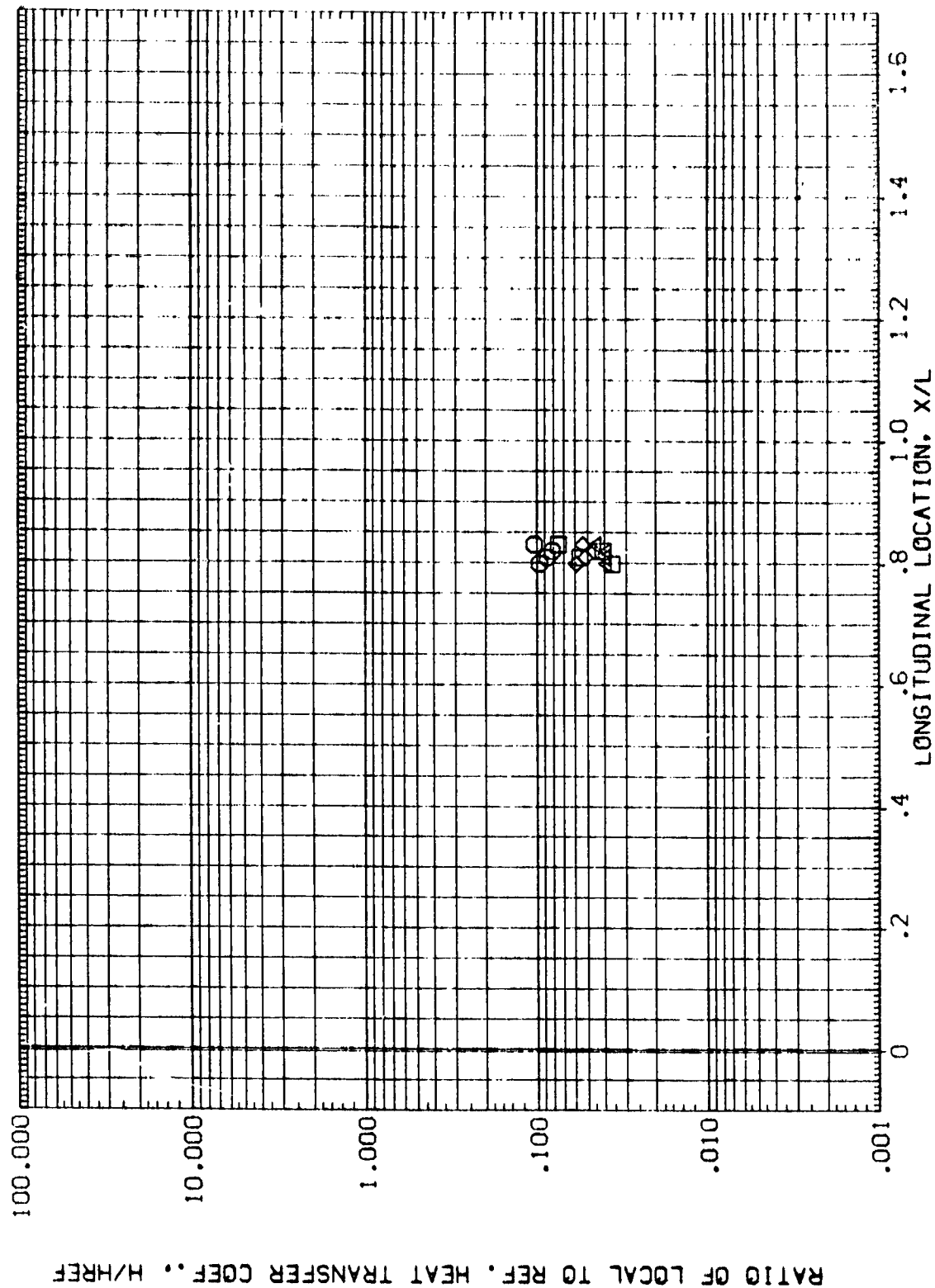


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(R18F03)	ARC3.5-211C[H48]OTS/NIPPLE/P/TRIP(O+S) EXT TANK	-5.000	.000	5.000
(R18F02)	ARC3.5-211C[H48]OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(R18F04)	ARC3.5-211C[H48]OTS/NIPPLE/P/TRIP(O+S) EXT TANK	5.000	.000	5.000
(R18F05)	ARC3.5-211C[H48]OTS/NIPPLE/P/TRIP(O+S) EXT TANK	10.000	.000	5.000

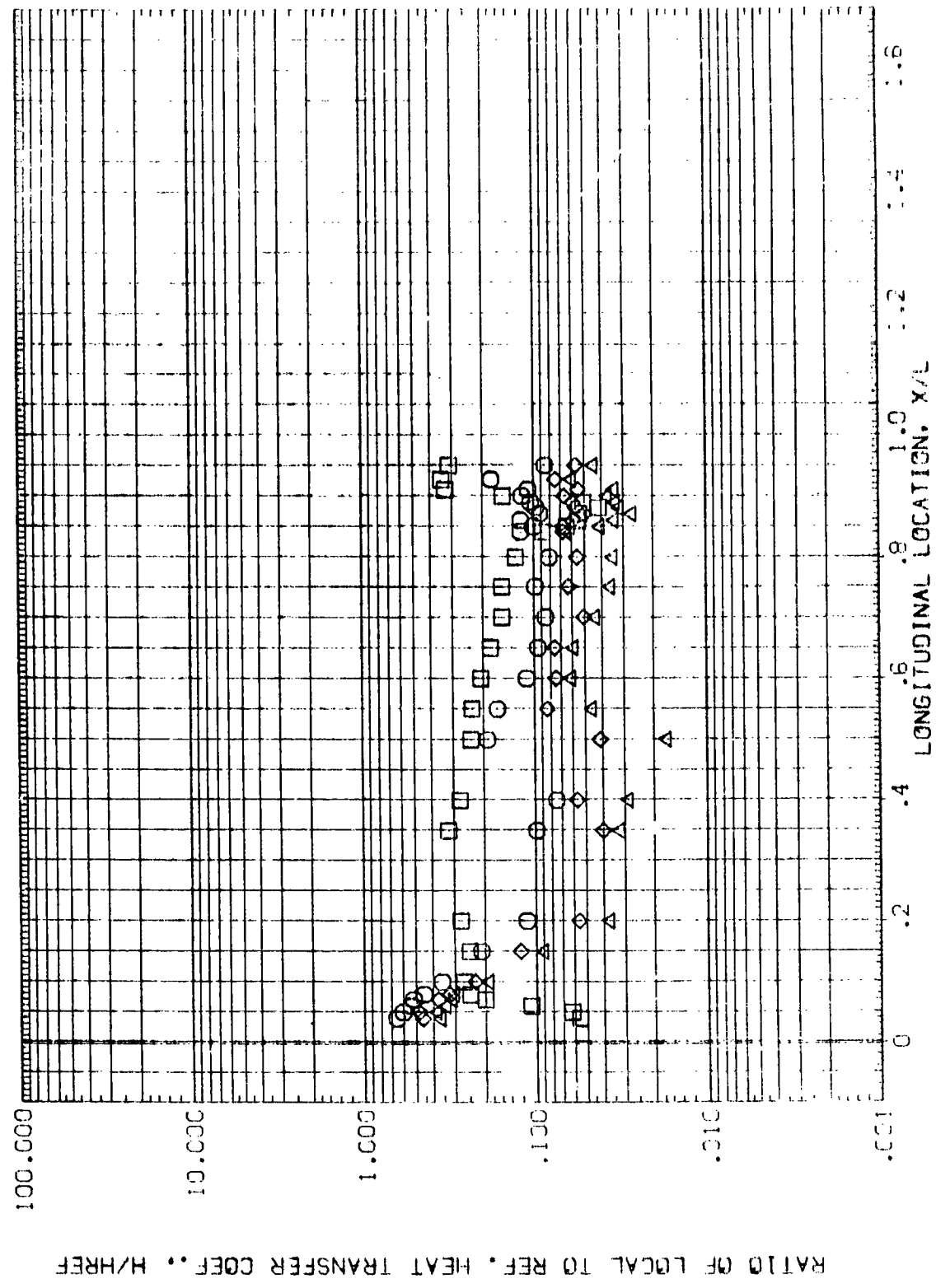


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK. BETA = 0.3

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RMBF03)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	-5.000	.000	5.000
(RMBF02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(RMBF04)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	5.000	.000	5.000
(RMBF05)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	10.000	.000	5.000

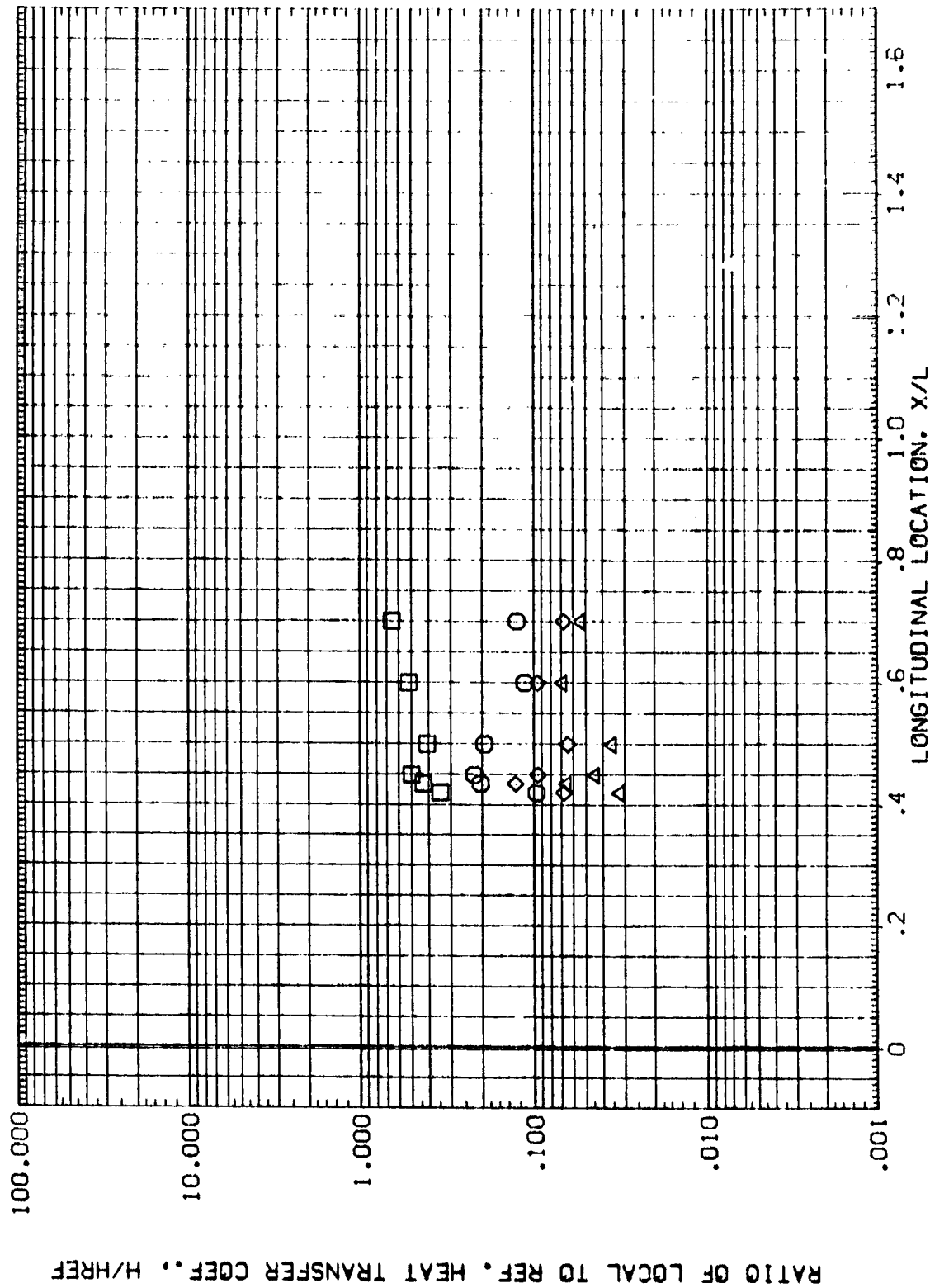


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 142.300

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	SCALE
(RNS03)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	-5.000	.000	5.000
(RNS02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNS04)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	5.000	.000	5.000
(RNS05)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	10.000	.000	5.000

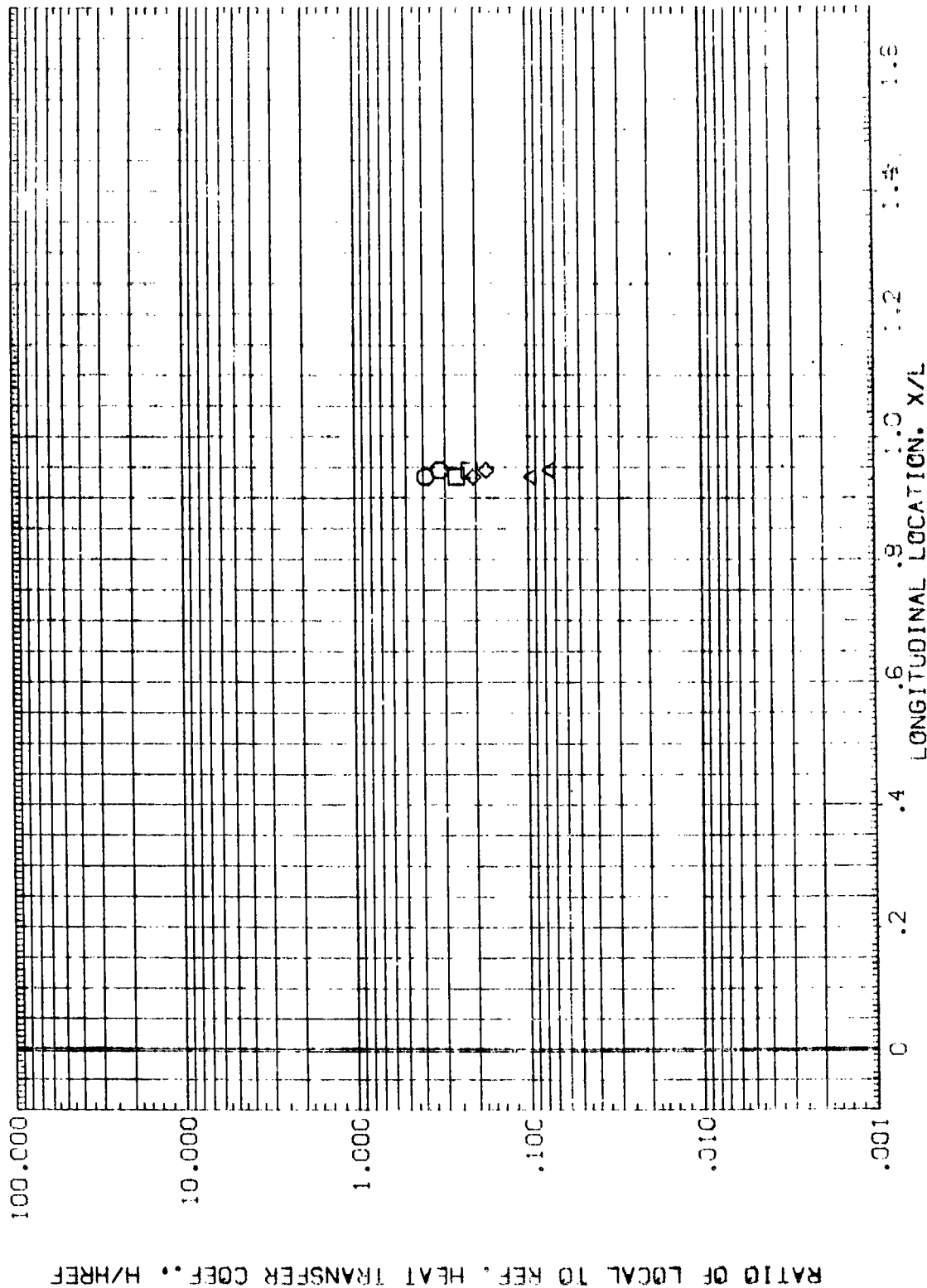


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 CHI = 154.980

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RBF03)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	-5.000	.000	5.000
(RBF02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RBF04)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	5.000	.000	5.000
(RBF05)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	10.000	.000	5.000

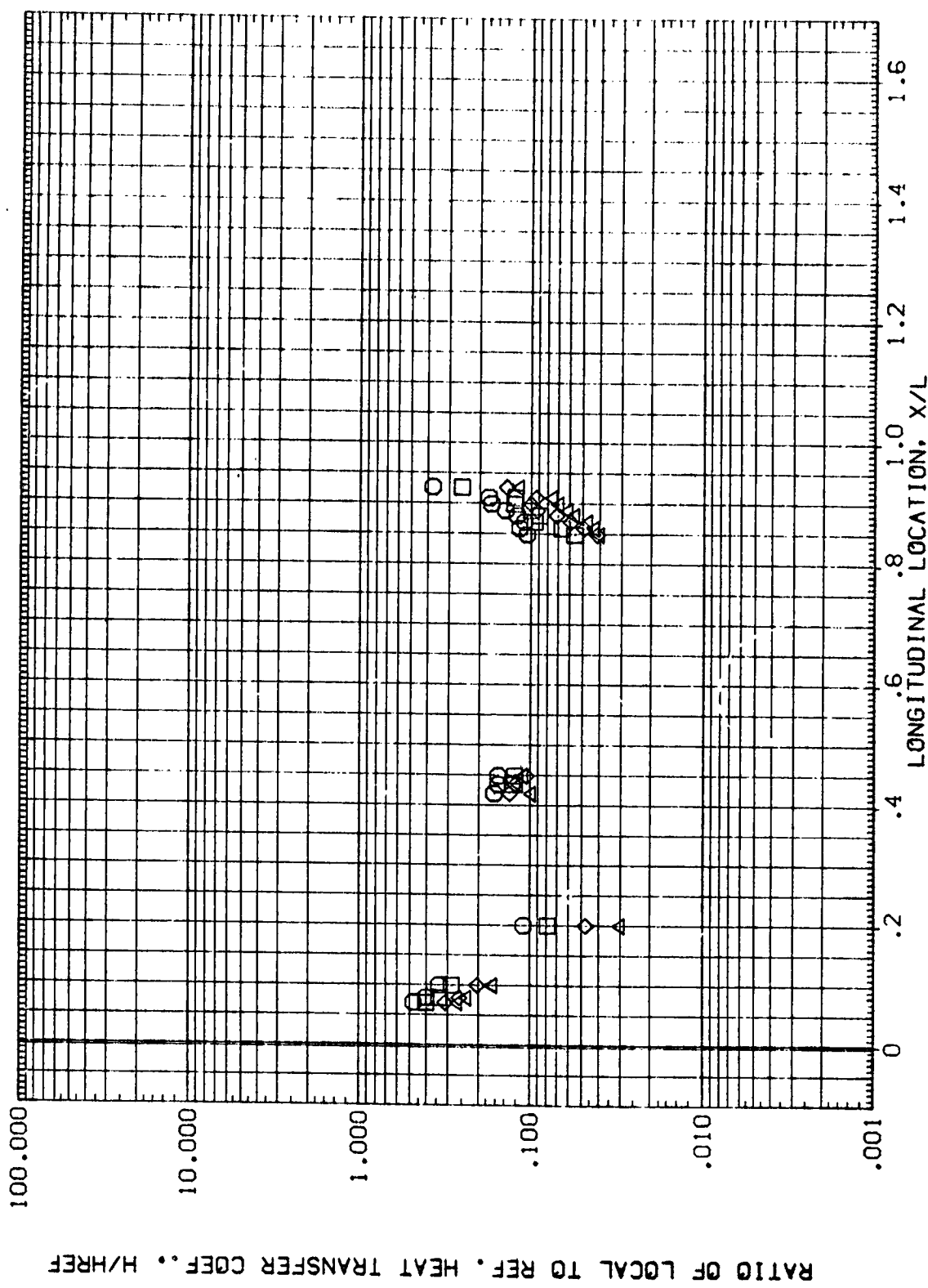


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 157.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	10.000	.000	5.000

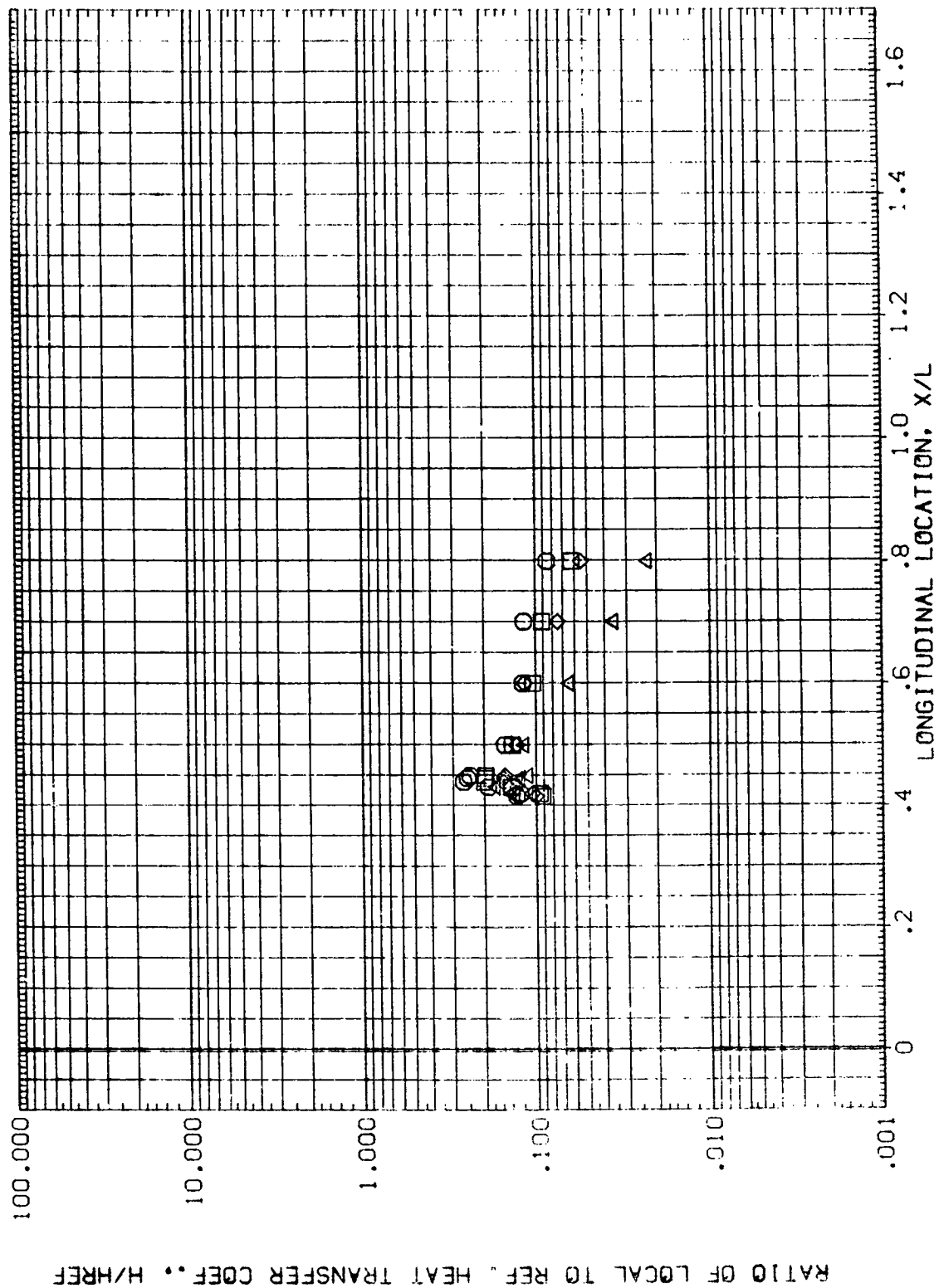


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 163.120



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	10.000	.000	5.000

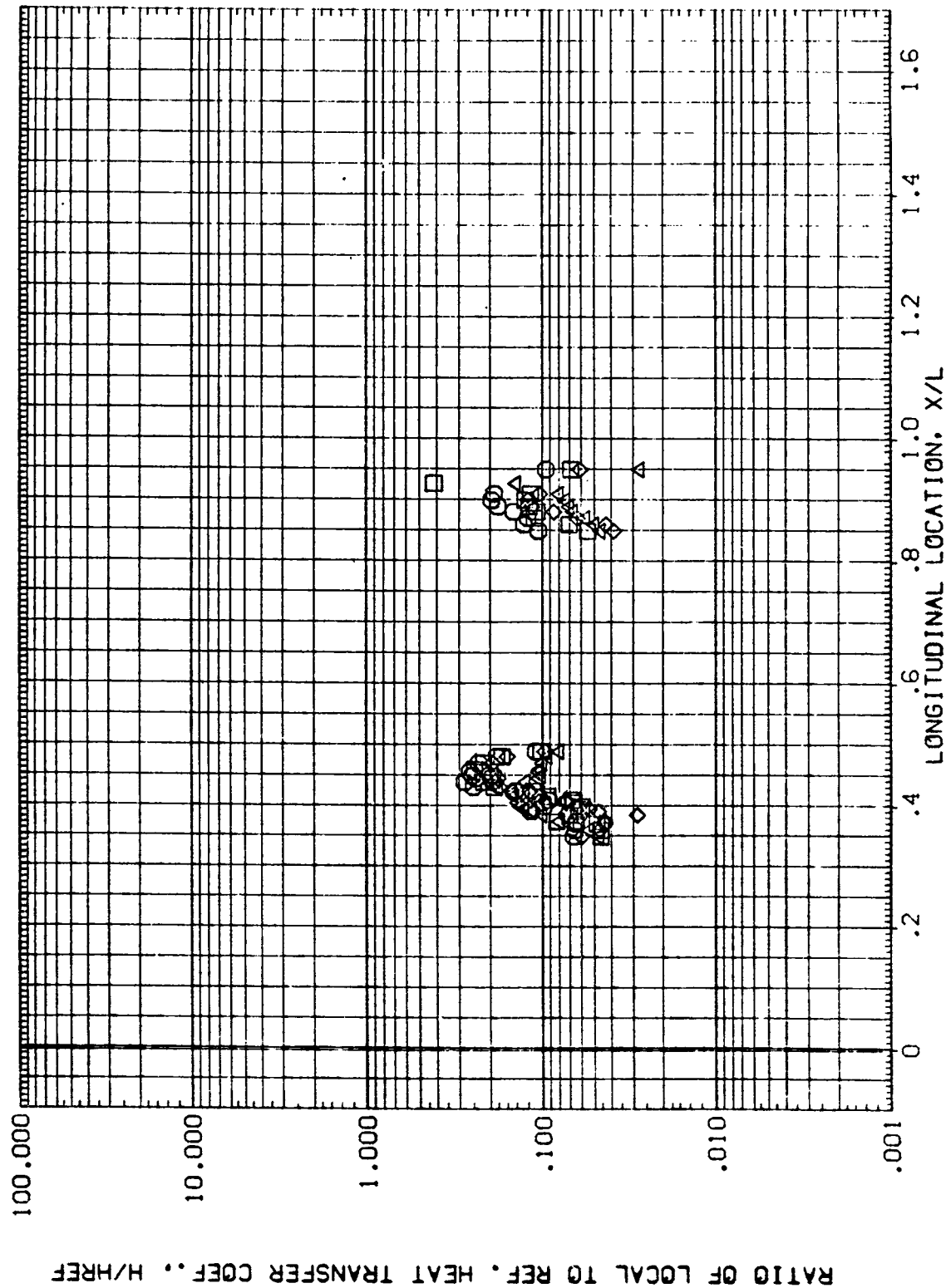


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 168.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      -5.000      .000      5.000

(RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      5.000

(RNBFO4)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      5.000      .000      5.000

(RNBFO5)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      10.000      .000      5.000

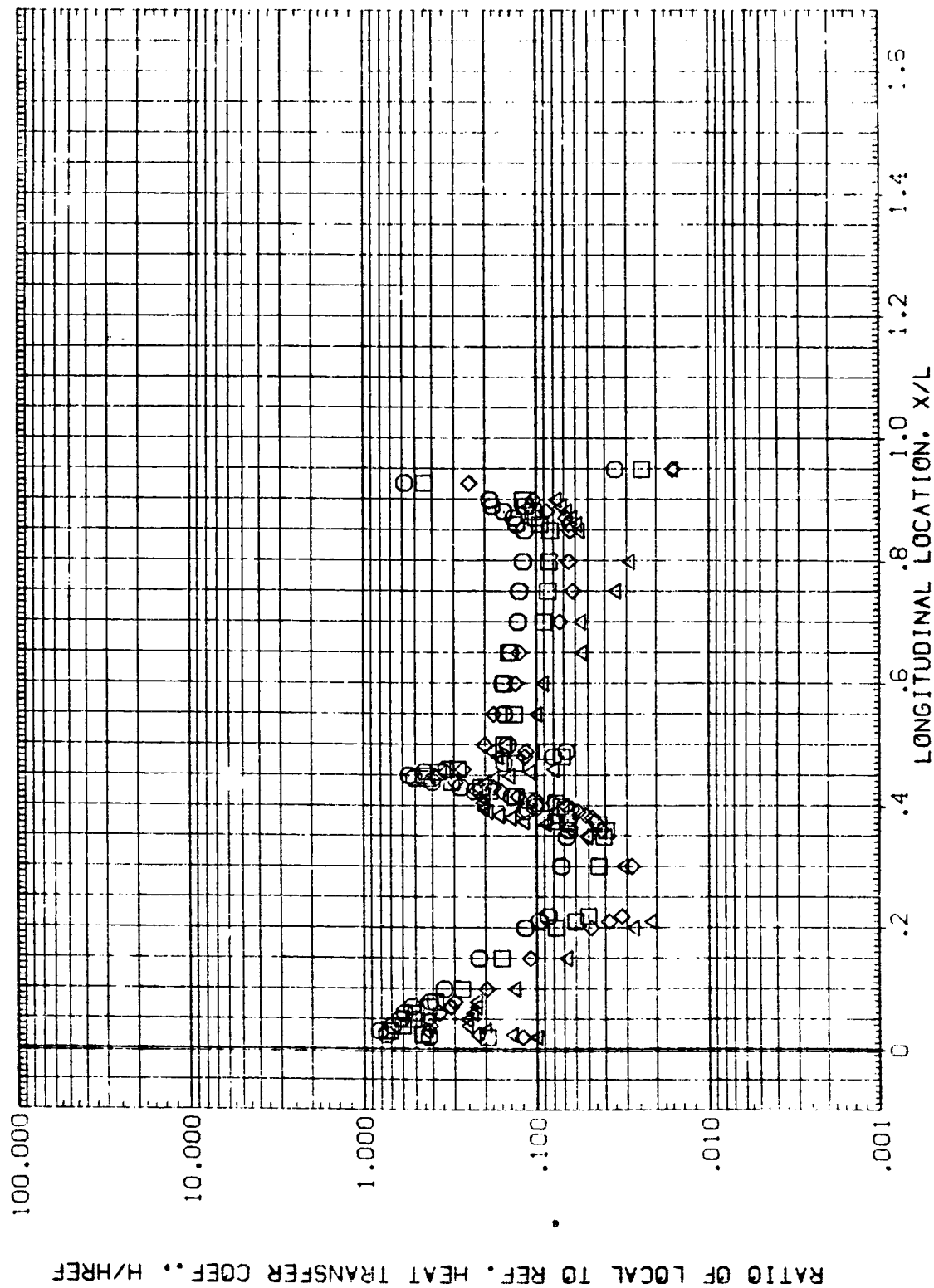


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300      HAW/HT = .900      PHI = 180.000

DATA SET SYMBOL  
(RNBFO3)  
(RNBFO2)  
(RNBFO4)  
(RNBFO5)

CONFIGURATION DESCRIPTION

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

ALPHA  
-5.000  
.000  
5.000  
10.000

BETA

.000  
.000  
.000  
.000

RN/L

5.000  
5.000  
5.000  
5.000

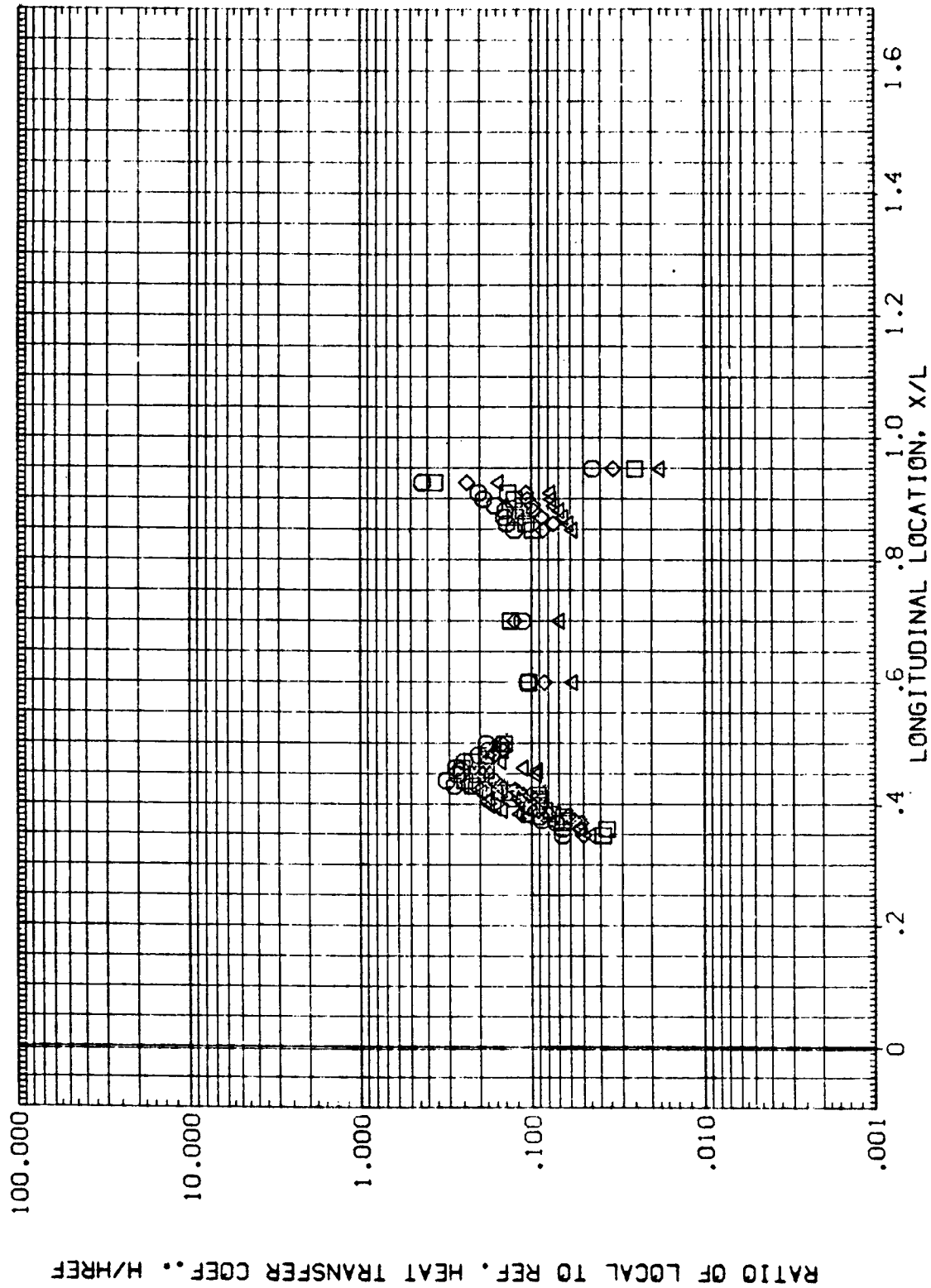


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFC3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      -5.000      .000      5.000

(RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      5.000

(RNBFO4)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      5.000      .000      5.000

(RNBFO5)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      10.000      .000      5.000

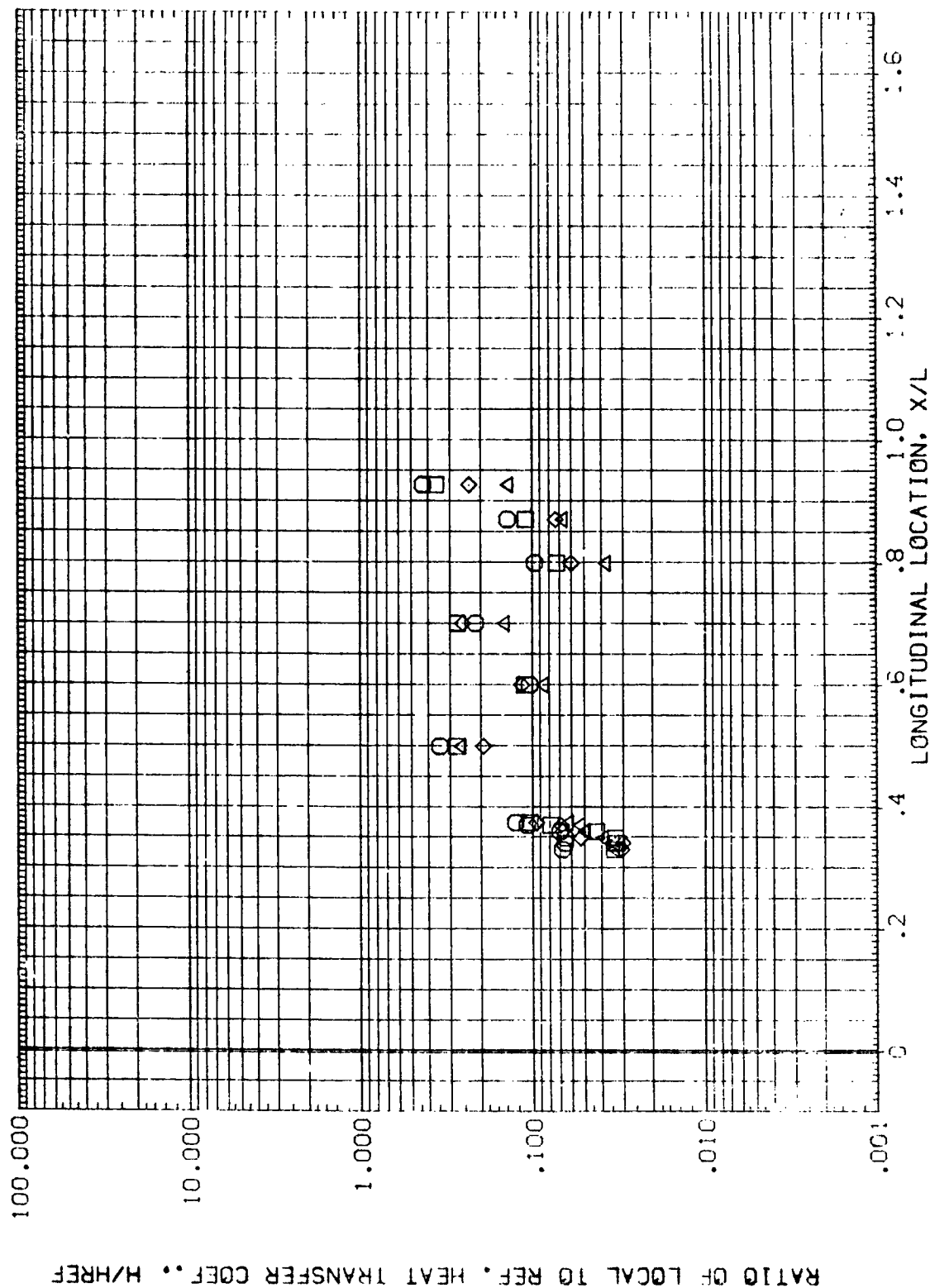


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO3)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)	-5.000	.000	5.000
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)	.000	.000	5.000
(RNBFO4)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)	5.000	.000	5.000
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)	10.000	.000	5.000

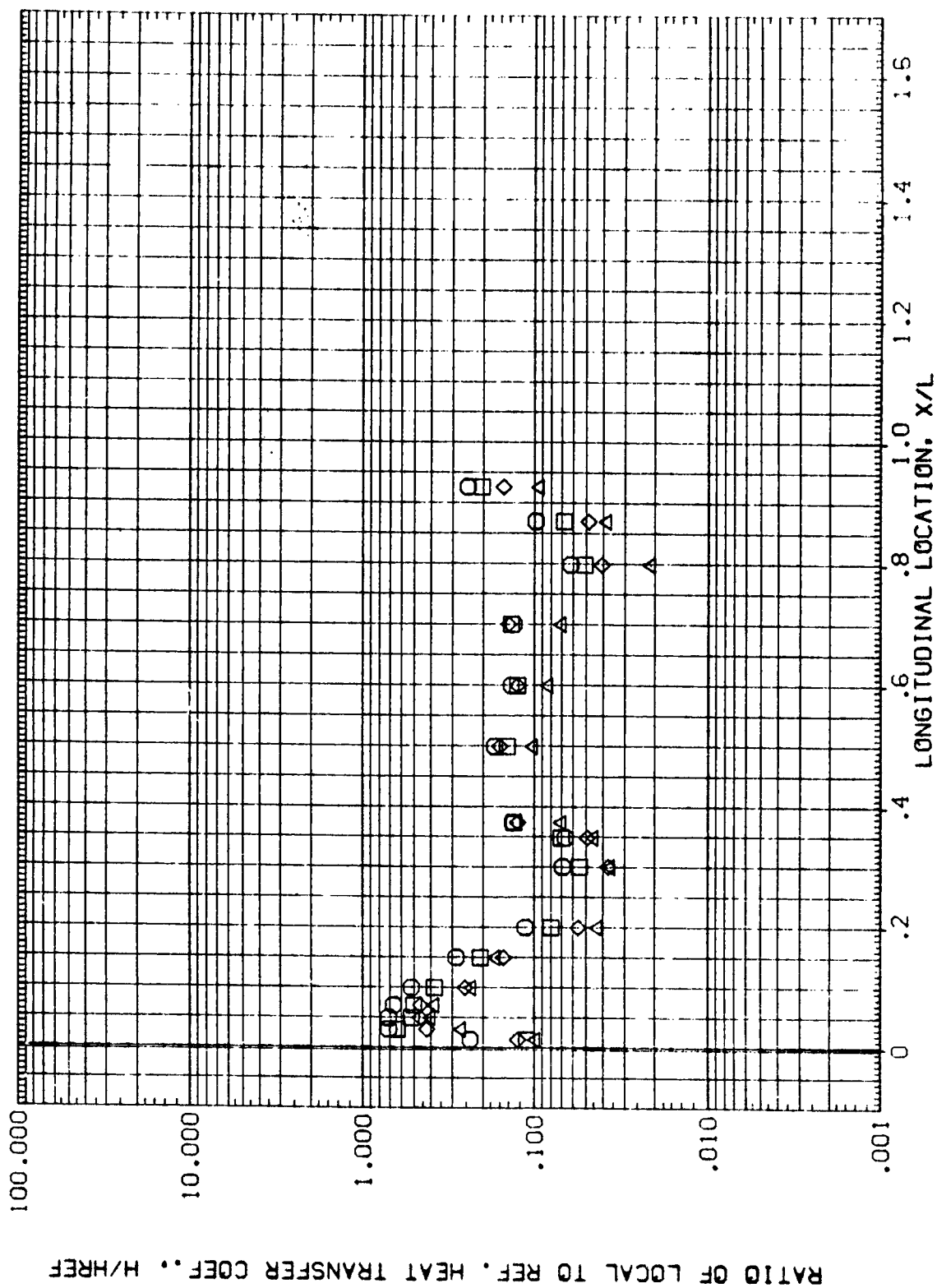


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000

(RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000

(RNBFO4)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      5.000      .000      5.000

(RNBFO5)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      10.000      .000      5.000

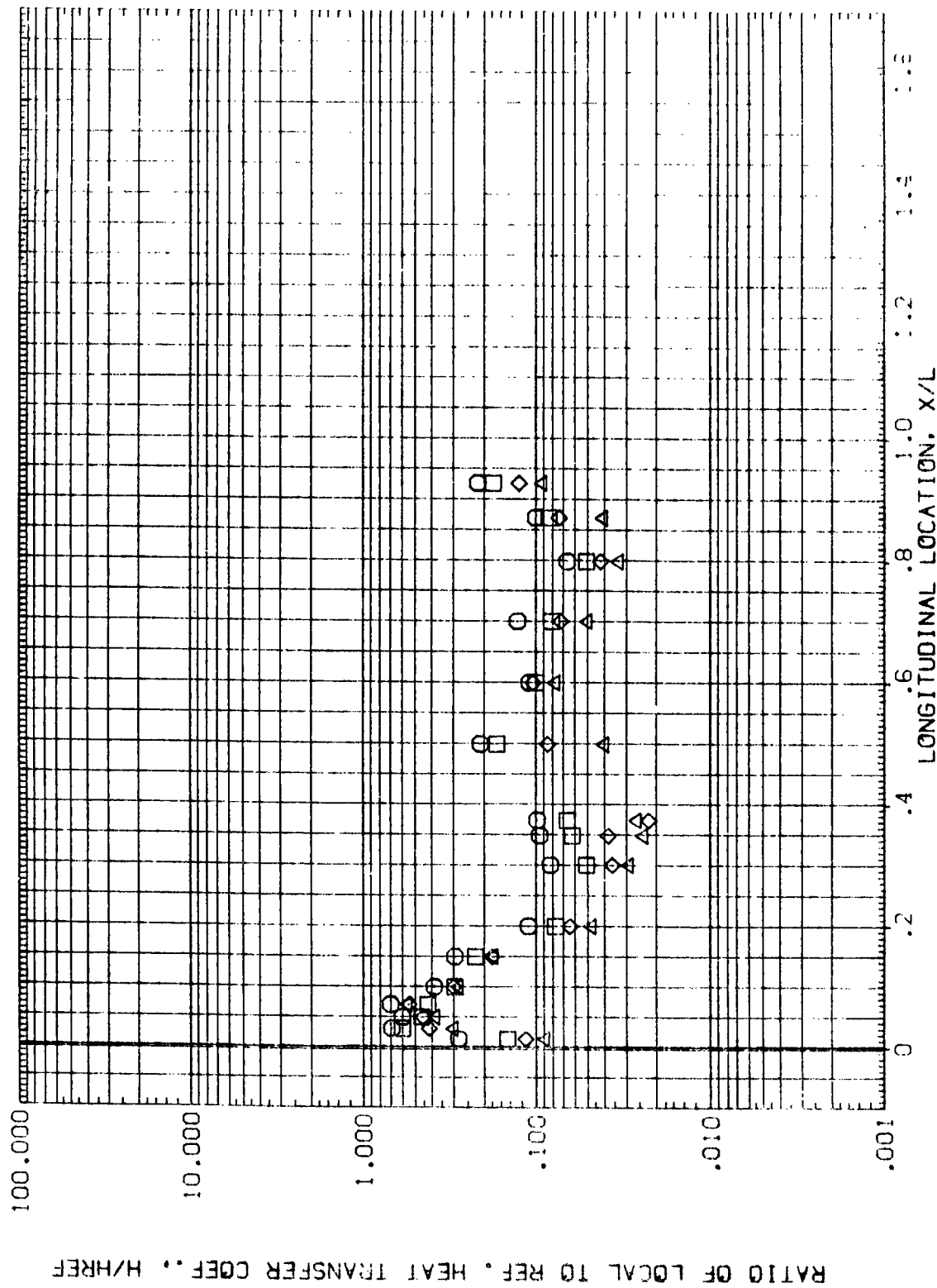


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300      HAW/HT = .900      PHI = 217.700

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RMBF15)  
(RMBF14)  
(RMBF13)

ARC3.5-211CIH48JOT /NIPPLE/P/TRIP  
ARC3.5-211CIH48JOT /NIPPLE/P/TRIP  
ARC3.5-211CIH48JOT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

ALPHA  
-5.000  
.000  
5.000

BETA  
.000  
.000  
.000

RN/L  
5.000  
5.000  
5.000

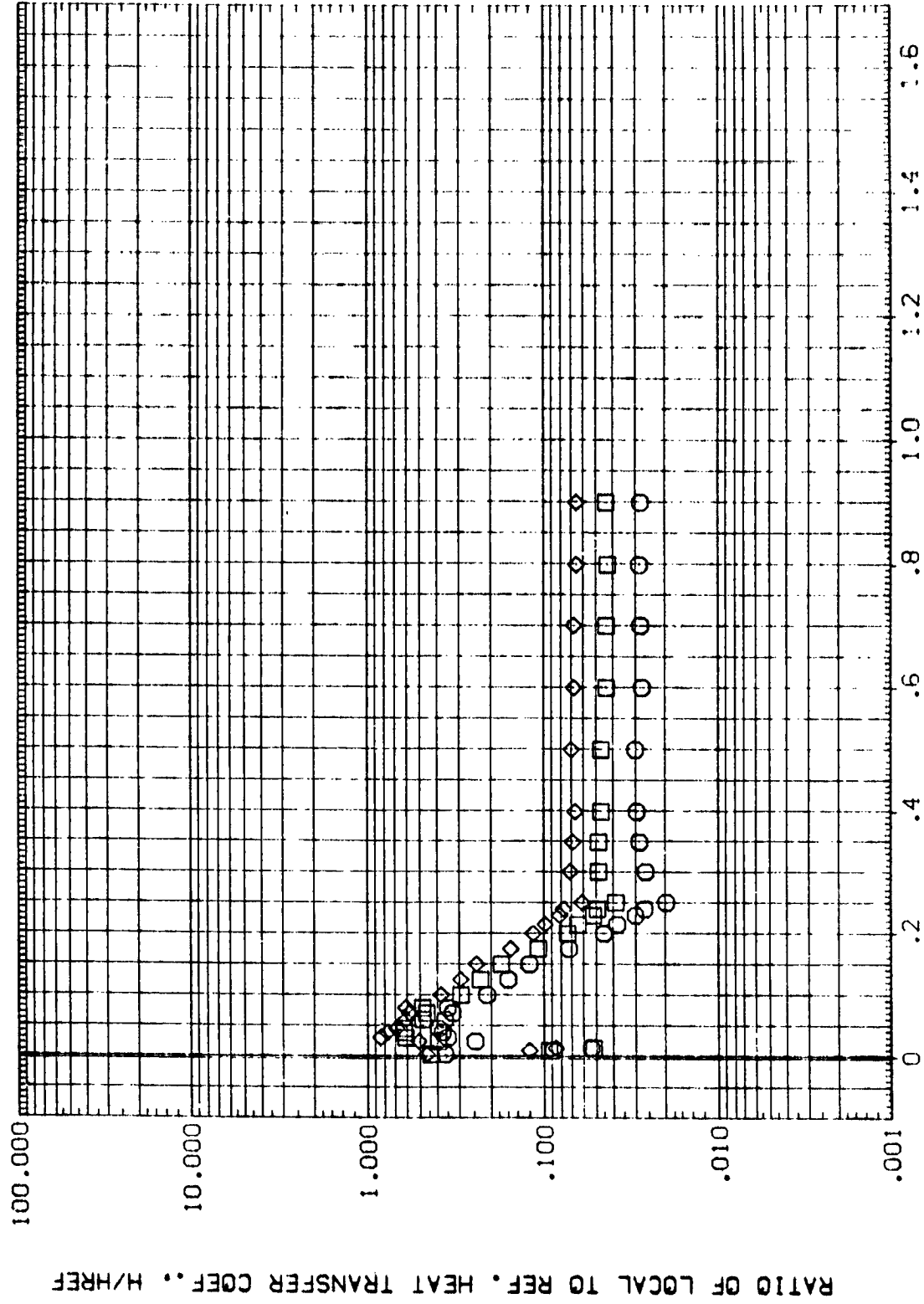


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RM/L
(R3BF15)	ARC3.5-211C(H48)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	.000	5.000
(R3BF14)	ARC3.5-211C(H48)OT /NIPPLE/P/TRIP	EXT TANK	.000	.000	5.000
(R3BF13)	ARC3.5-211C(H48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	.000	5.000

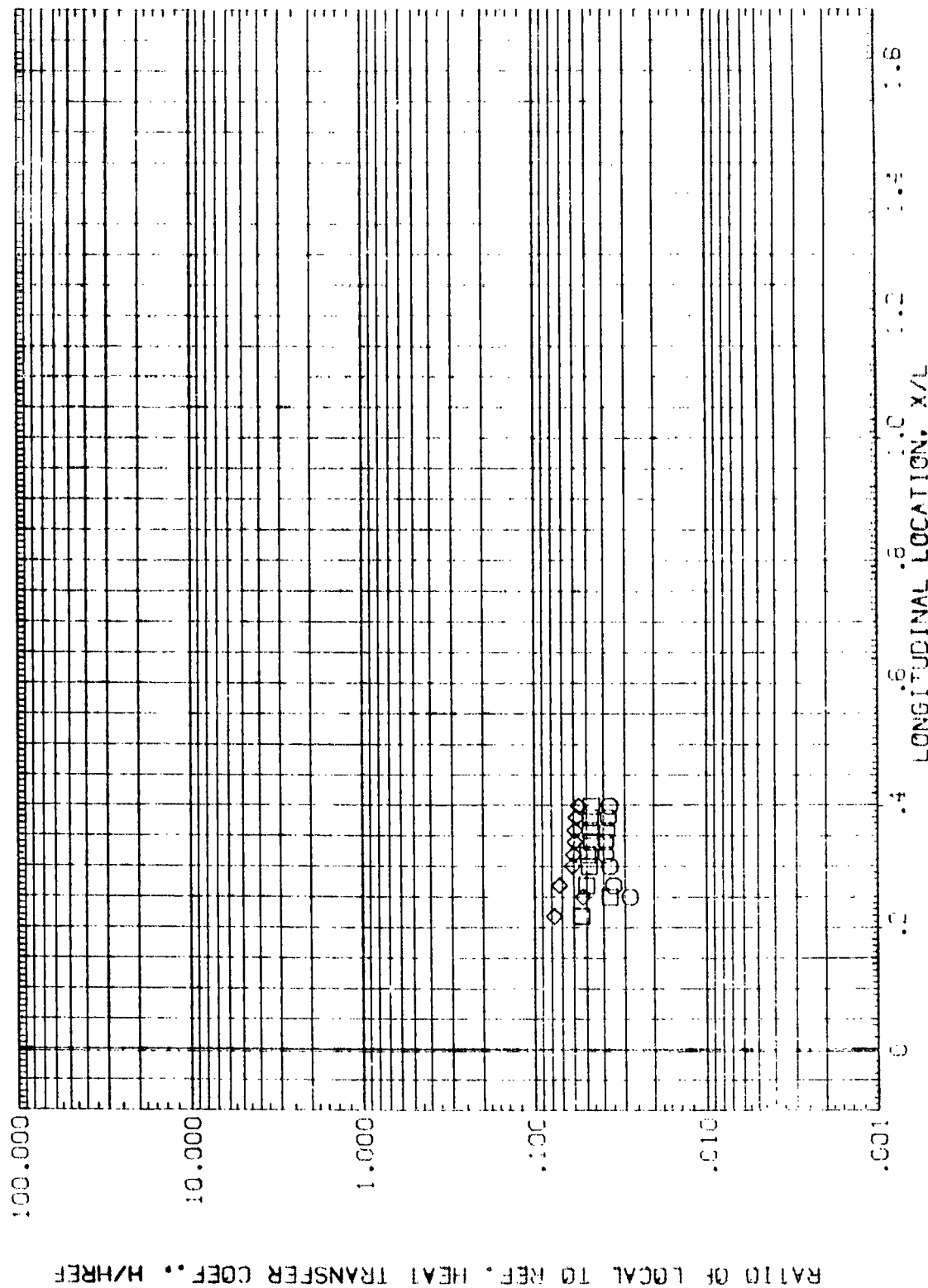


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 MAW, HT = .900 PHI = 55.000



DATA SET SYMBOL

(RNGF15)  
(RNGF14)  
(RNGF13)

CONFIGURATION DESCRIPTION

ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK

EXT TANK  
EXT TANK

ALPHA

-5.000  
-5.000  
5.000

BETA

.000  
-0.000  
0.000

RN/L

5.000  
5.000  
5.000

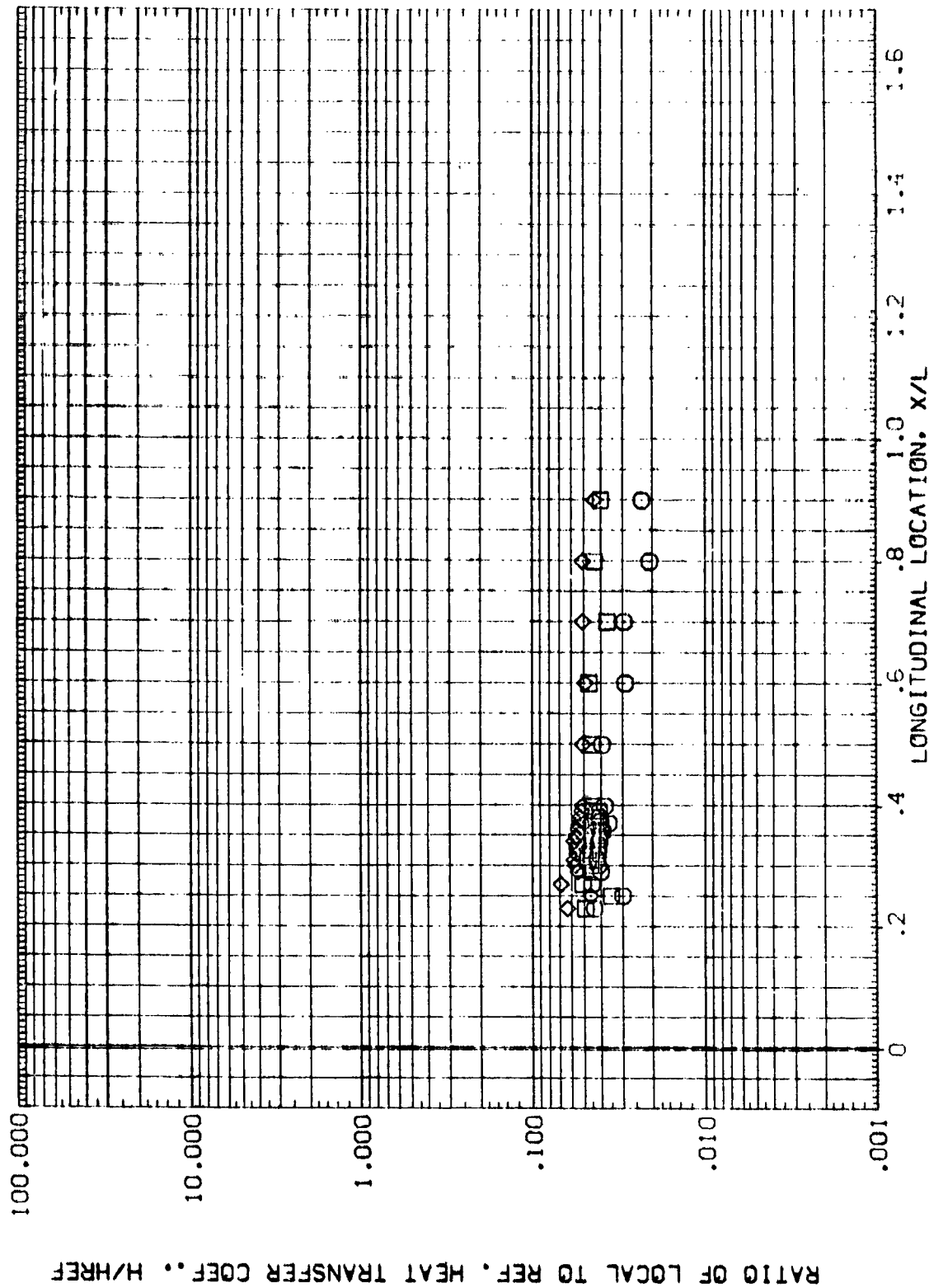


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RIBF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RIBF14) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RIBF13) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
 EXT TANK  
 EXT TANK

ALPHA  
 -5.000  
 .000  
 .000

BETA  
 .000  
 .000  
 .000

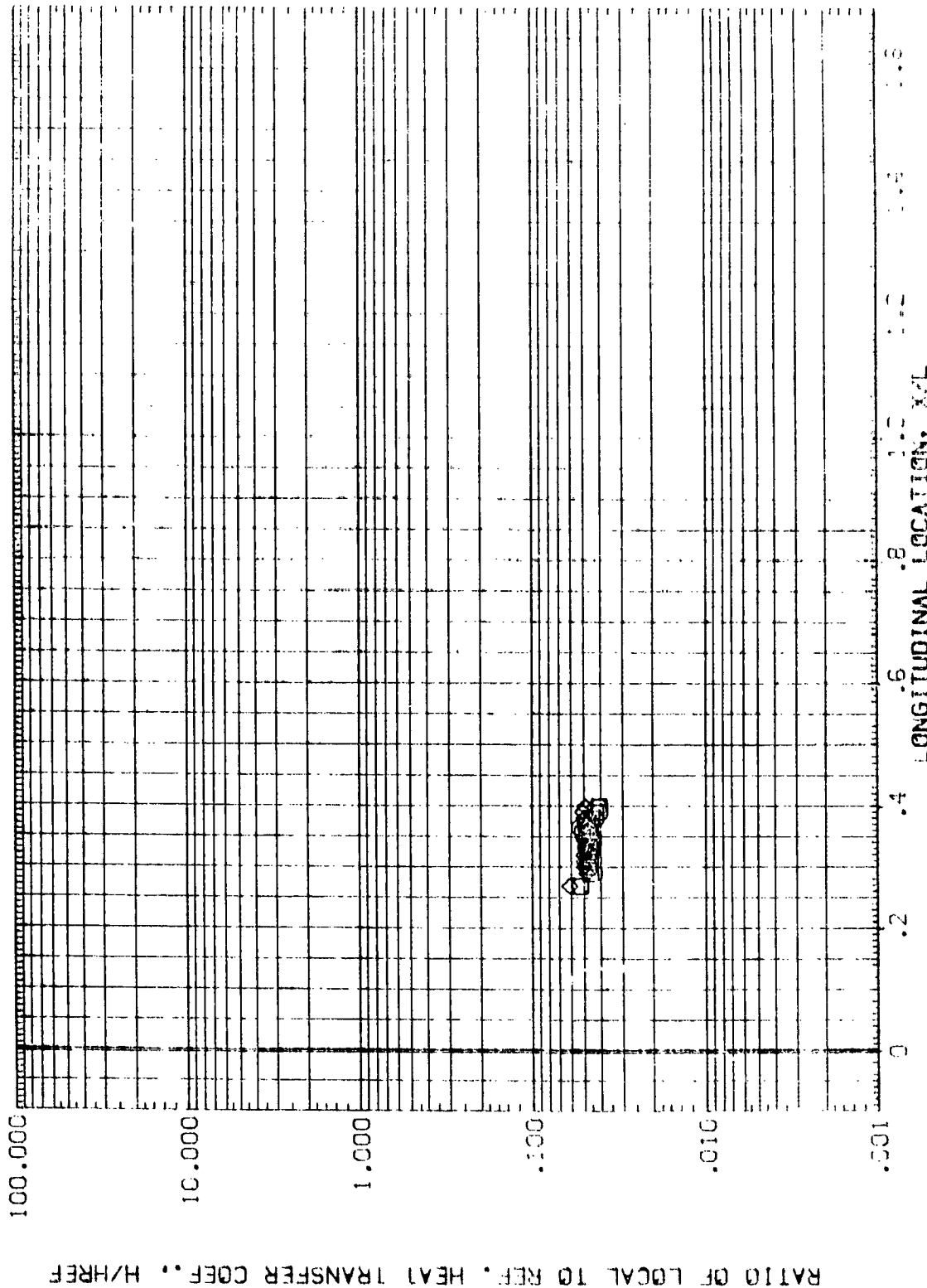


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(RABF15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

(RABF14)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

(RABF13)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK      EXT TANK      EXT TANK

EXT TANK      EXT TANK      EXT TANK

EXT TANK      EXT TANK      EXT TANK

ALPHA      BETA      RM/L

-5.000      .000      5.000

5.000      .000      5.000

5.000      .000      5.000

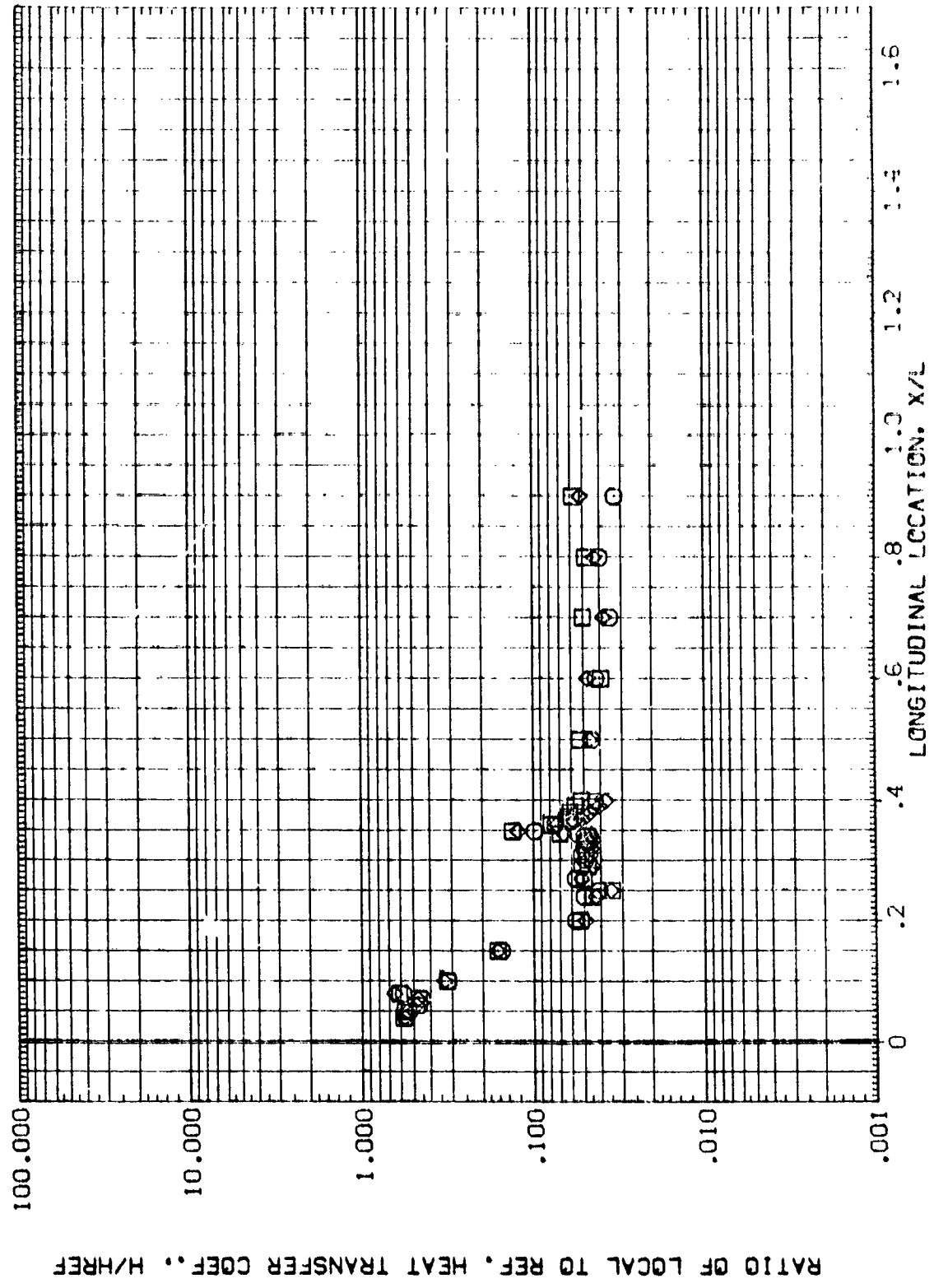


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK. BETA = 0.0

MACH = 5.300      HAW/HT = .900      PH = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    P/L

(RNGF15)    ARC3.5-211C(H48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000

(RNGF14)    ARC3.5-211C(H48)OT /NIPPLE/P/TRIP    .000    .000    5.000

(RNGF13)    ARC3.5-211C(H48)OT /NIPPLE/P/TRIP    5.000    .000    5.000

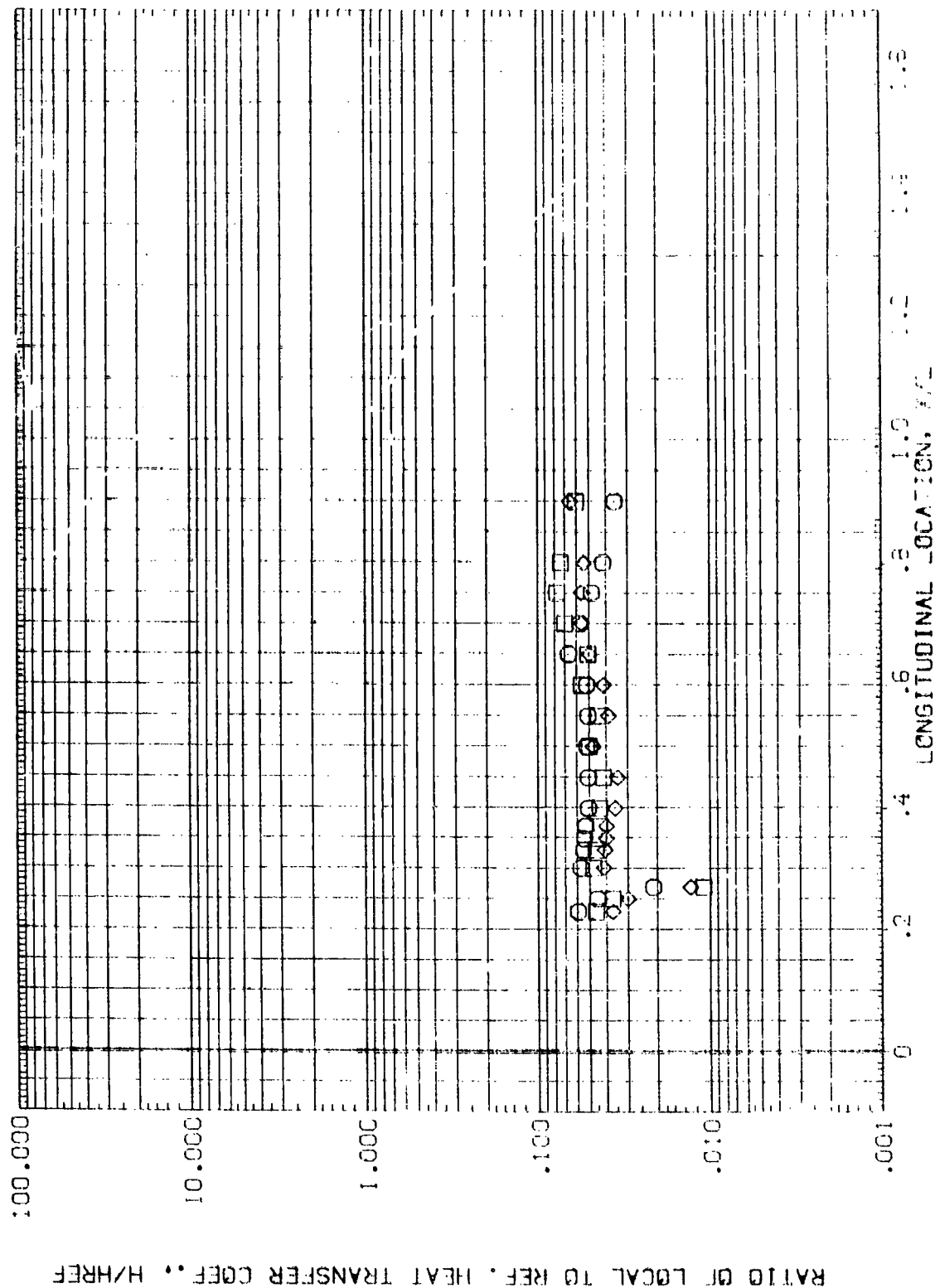


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK,  $BETA = 0.0$

MACH = 5.300    HAW/HT = .800    PHI = 112.500    PAGE 278

DATA SET SYMBOL      CONFIGURATION DESCRIPTION

(RNB15)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP
(RNB14)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP
(RNB13)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK      ALPHA      BETA      RN/L

EXT TANK	-5.000	.000	5.000
EXT TANK	.000	.000	5.000
EXT TANK	5.000	.000	5.000

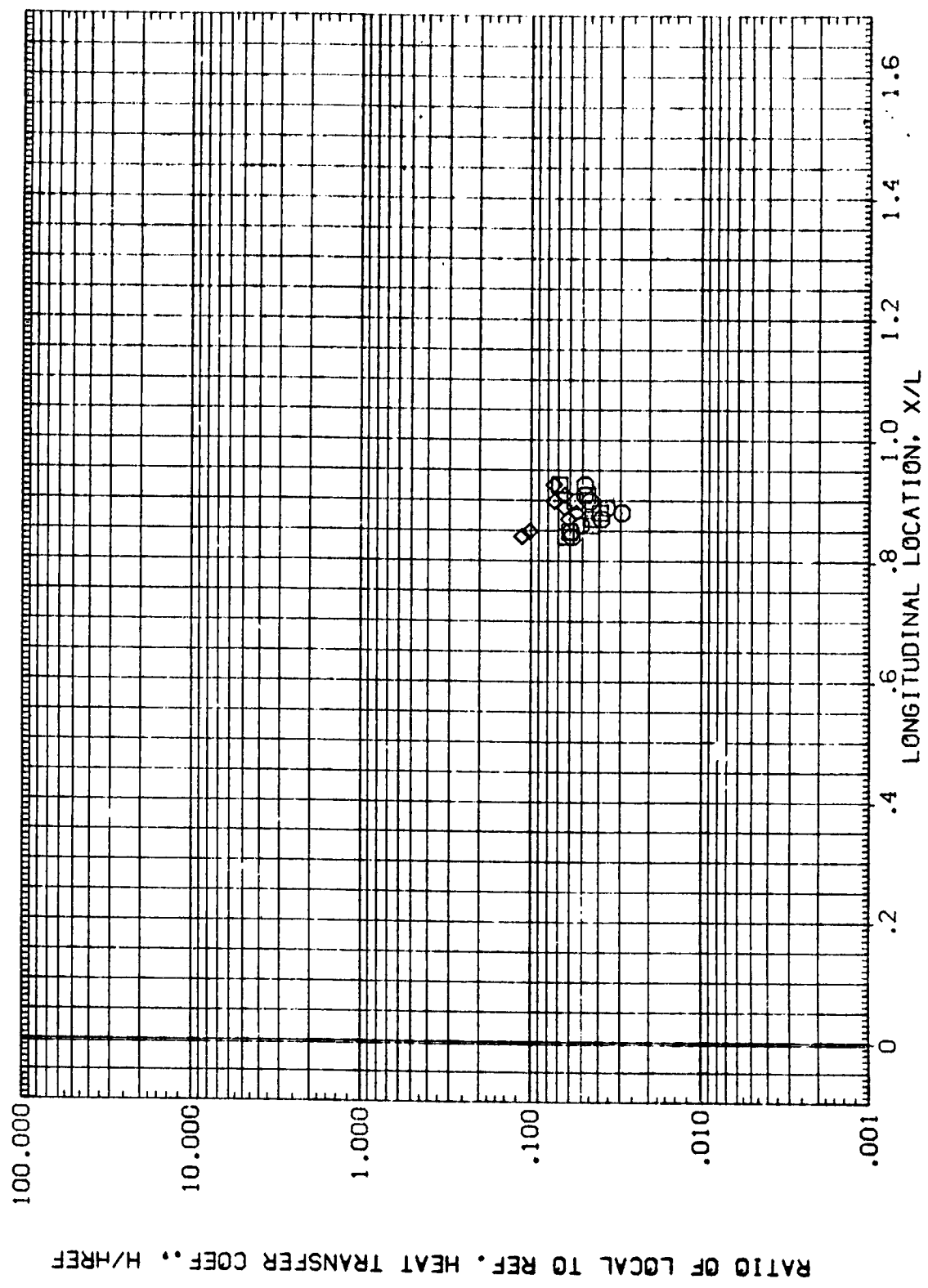


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300    HAW/HREF = .900    PHI = 125.400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFI5)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	.000	5.000
(RNBFI4)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	.000	.000	5.000
(RNBFI3)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	.000	5.000

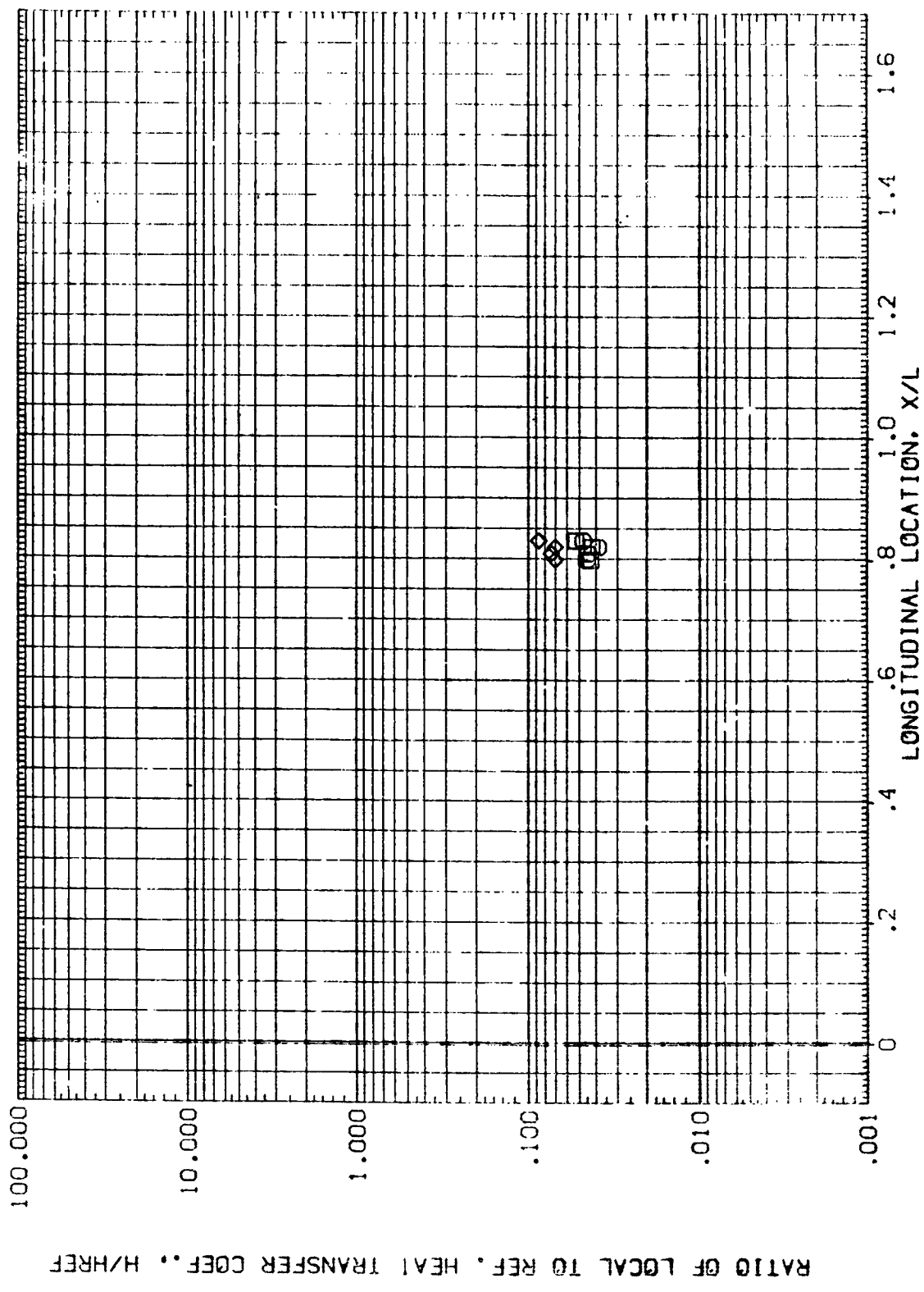


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 129.300 PAGE 280

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNB15)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	.000	5.000
(RNB14)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	.000	.000	5.000
(RNB13)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	.000	5.000

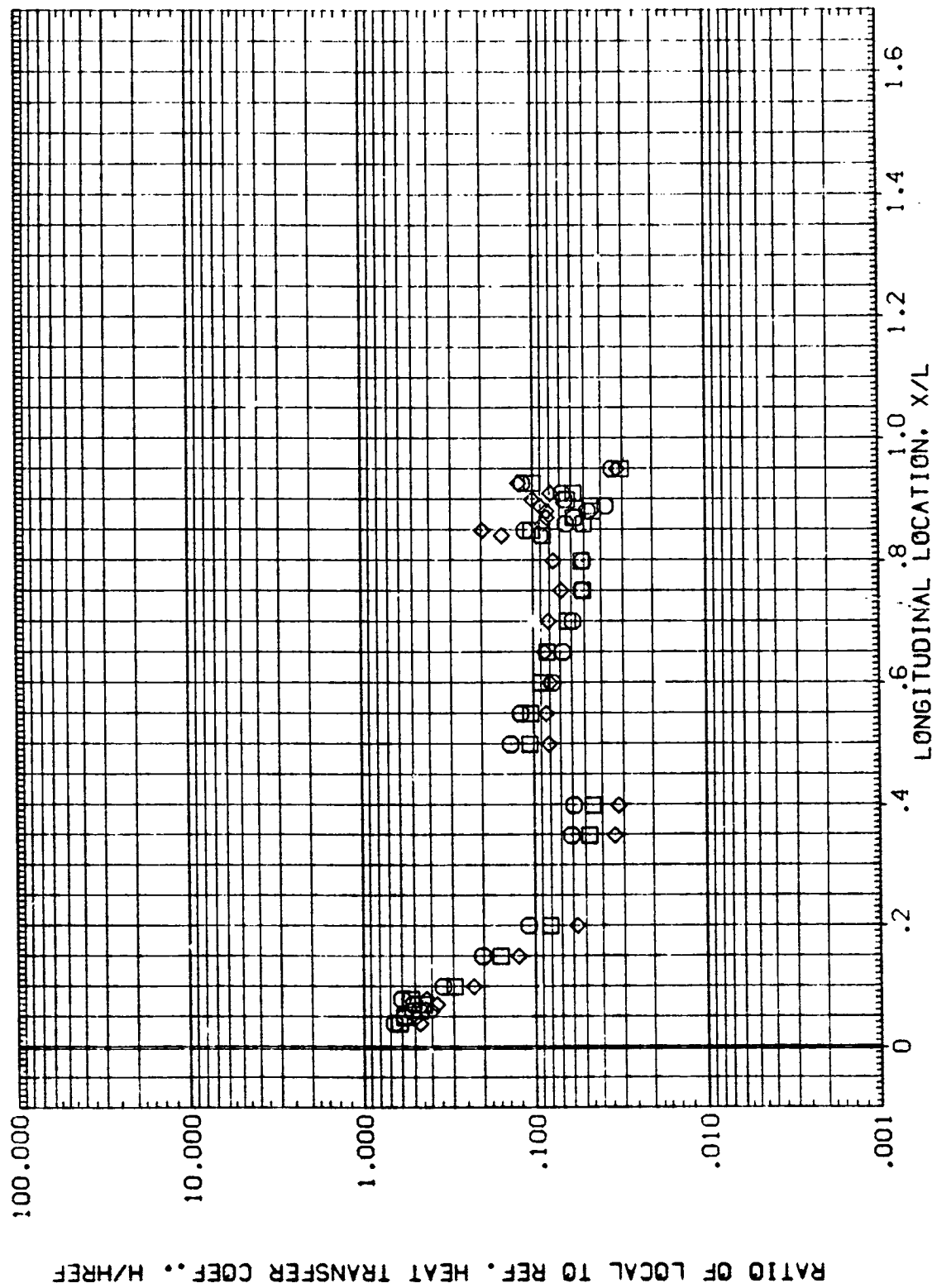


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK,  $BETA = 0.0$

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFI5)  
(RNBFI4)  
(RNBFI3)

ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

ALPHA BETA RN/L  
-5.000 .000 5.000  
.000 .000 5.000  
5.000 .000 5.000

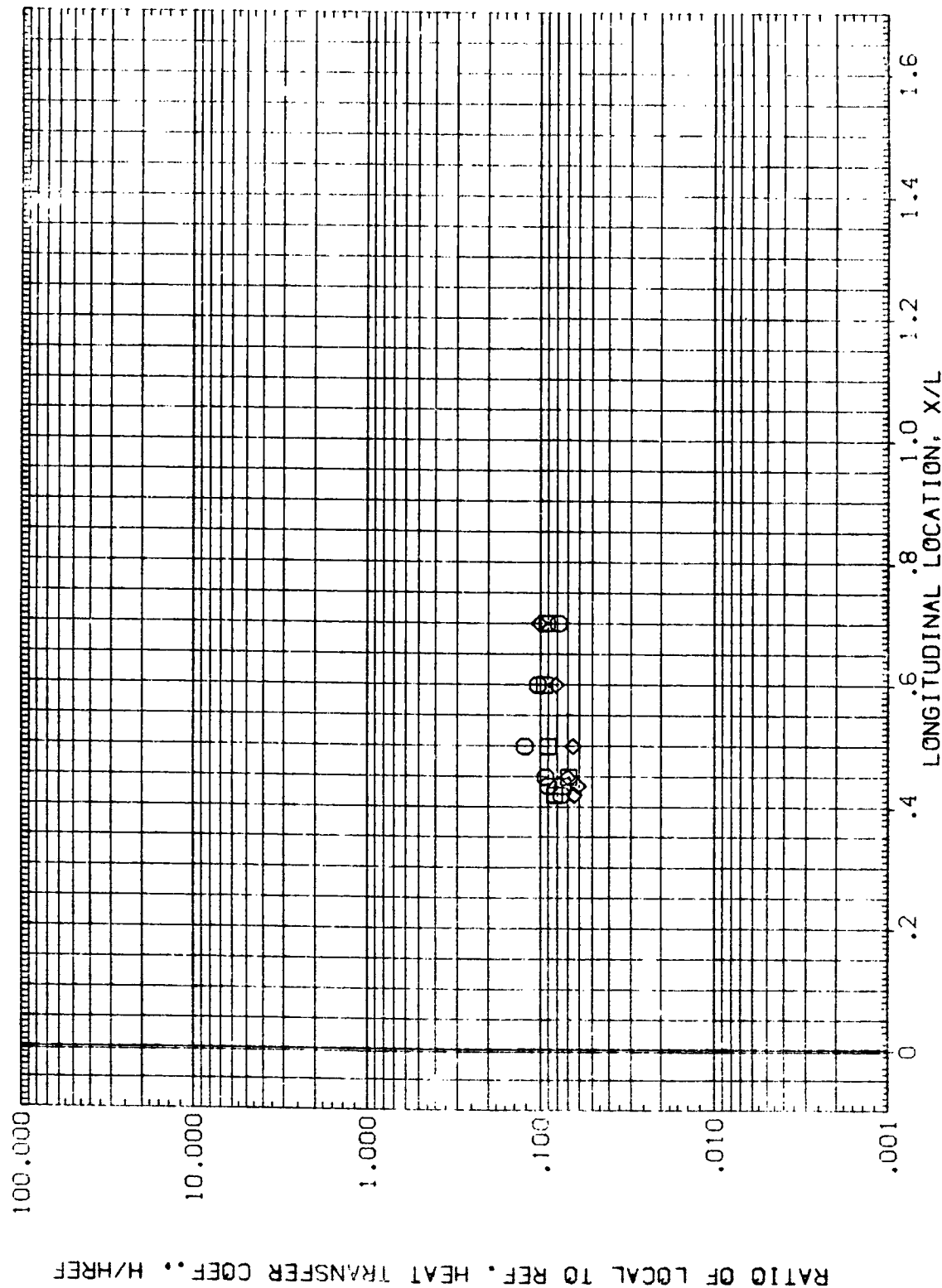


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

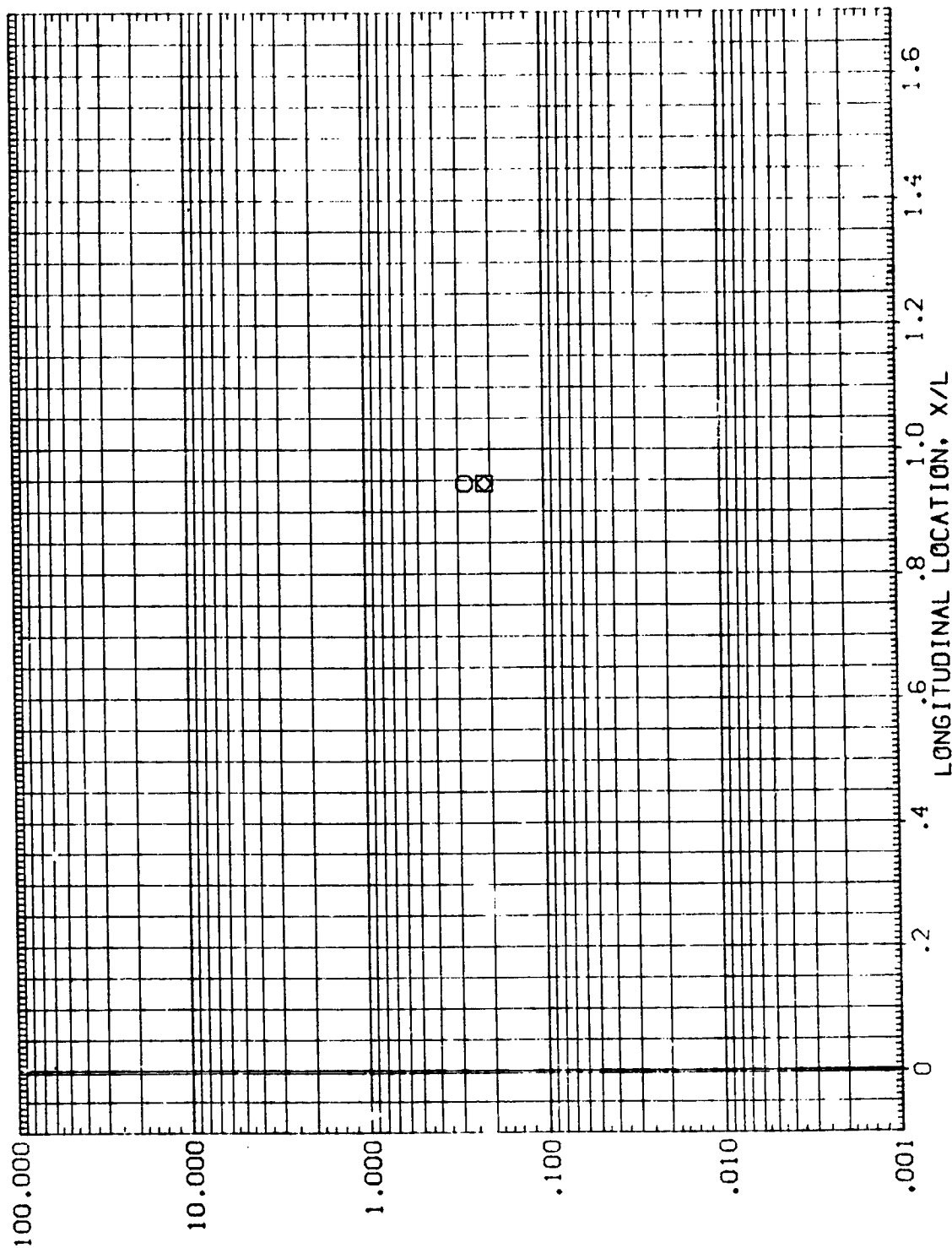
MACH = 5.300 HAW/HT = .900 PHI = 142.300



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI5) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI4) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI3) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
 EXT TANK  
 EXT TANK

ALPHA BETA RV/L  
 -5.000 .000 5.000  
 .000 .000 5.000  
 5.000 .000 5.000



RATIO OF LOCAL TO REF. HEAT TRANSFER COEFF.,  $H/H_{REF}$

FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK,  $BETA = 0.0$

MACH = 5.320 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RV/L
(RNF15)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	.000	5.000
(RNF14)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	.000	.000	5.000
(RNF13)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	.000	5.000

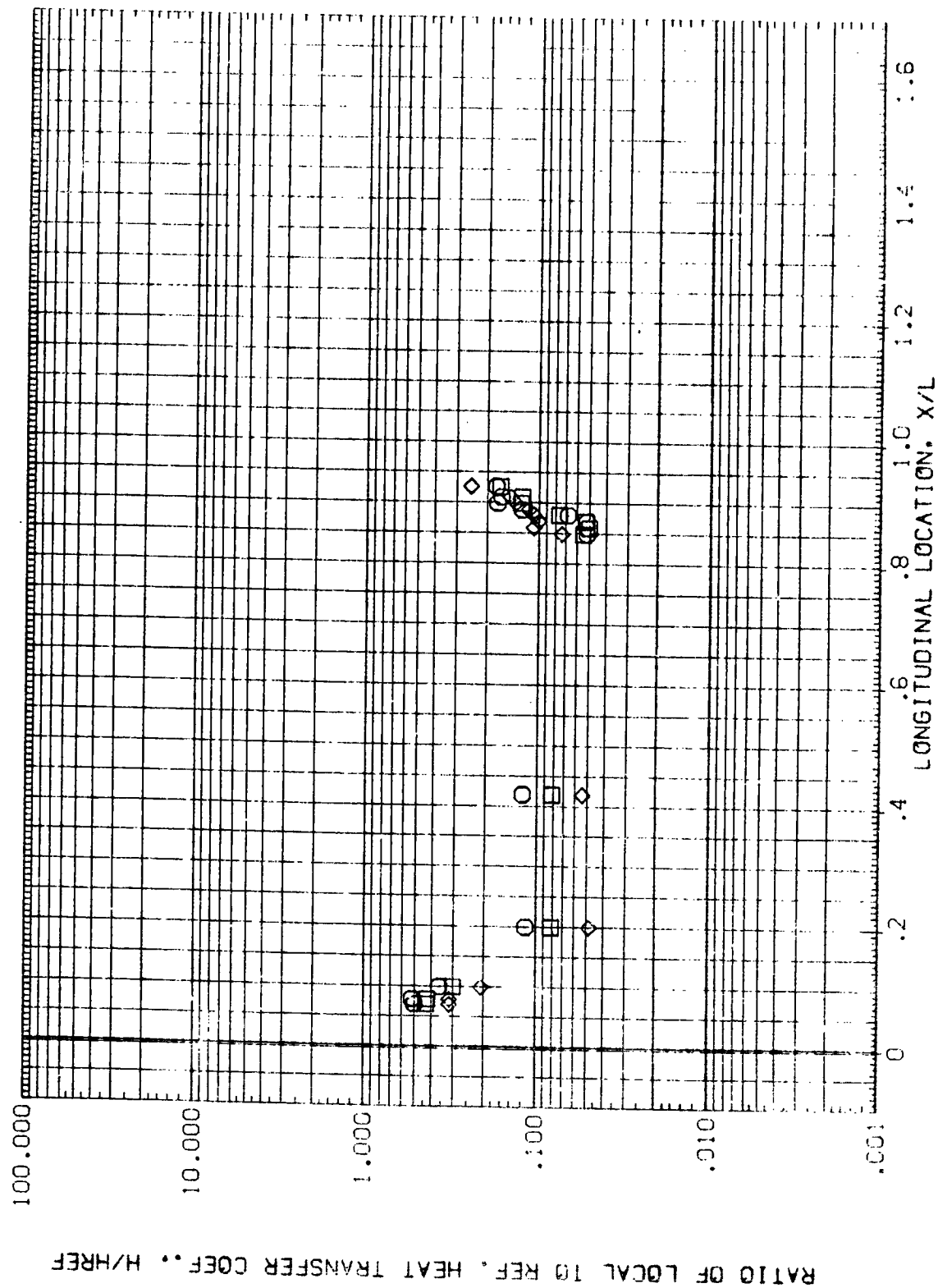


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 157.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNF15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNF14)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNF13)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK      ALPHA      BETA      RN/L  
 EXT TANK      -5.000      .000      5.000  
 EXT TANK      5.000      .000      5.000

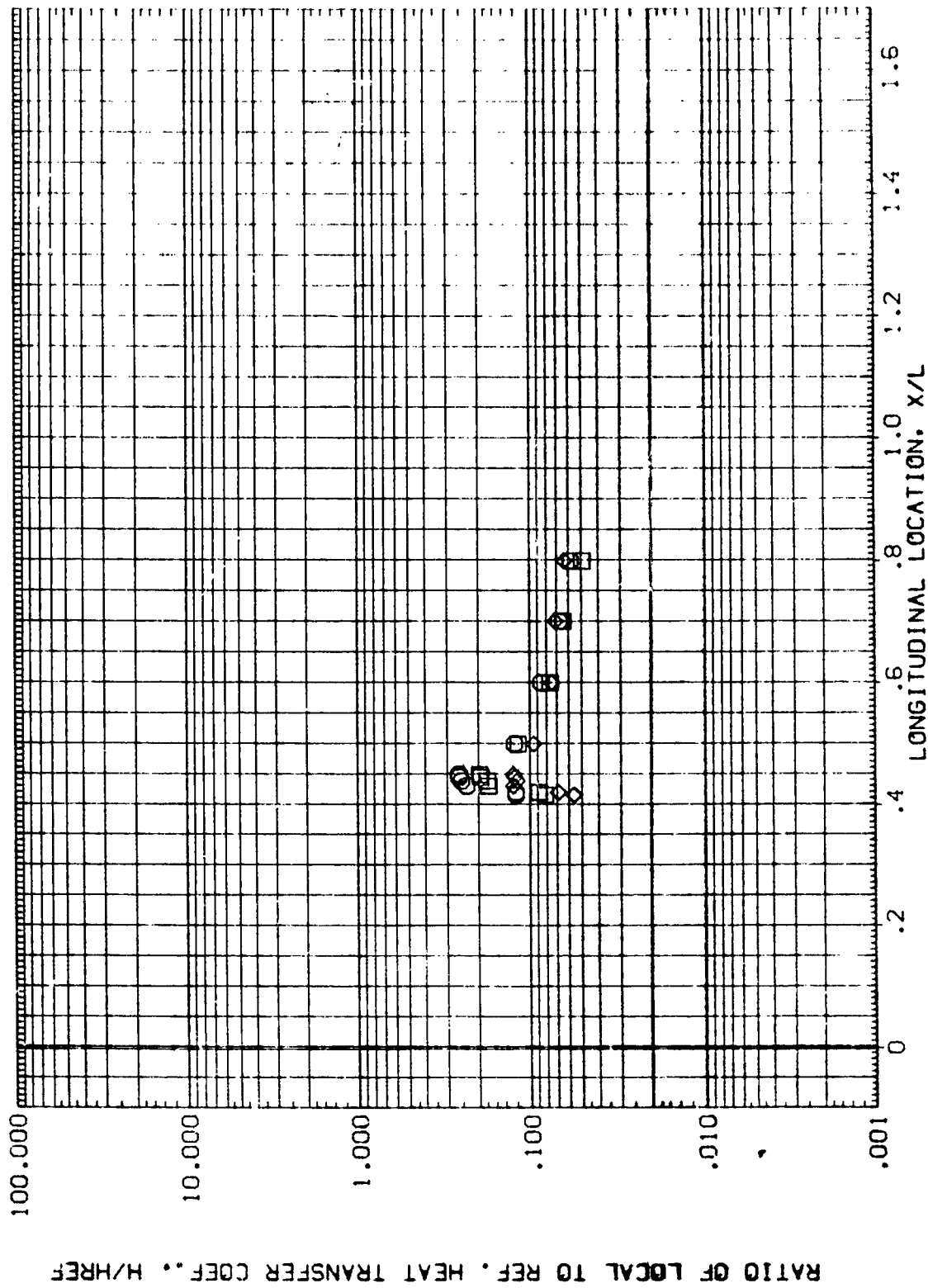


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA=0.0

MACH = 5.300 HAW/HT = .900 PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      EXT TANK      ALPHA      BETA      RN/L

(RNB15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      EXT TANK      -5.000      .000      5.000

(RNB14)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      EXT TANK      .000      .000      5.000

(RNB13)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      EXT TANK      5.000      .000      5.000

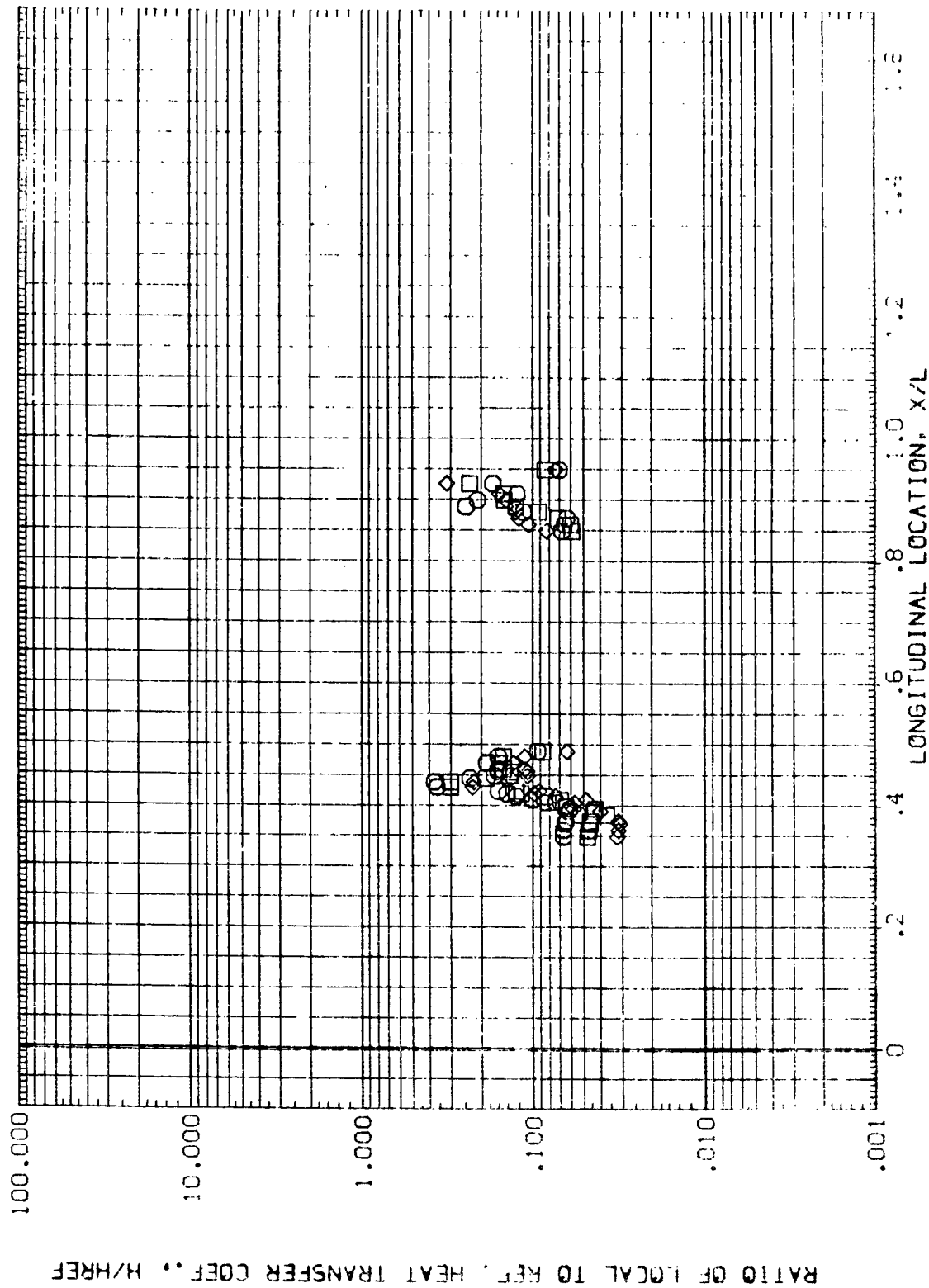


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 168.000

DATA SET SYMBOL: CONFIGURATION DESCRIPTION

(RNGF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
(RNGF14) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
(RNGF13) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

ALPHA  
-5.000  
-5.000  
5.000

BETA  
.000  
.000  
.000

RN/L  
5.000  
5.000  
5.000

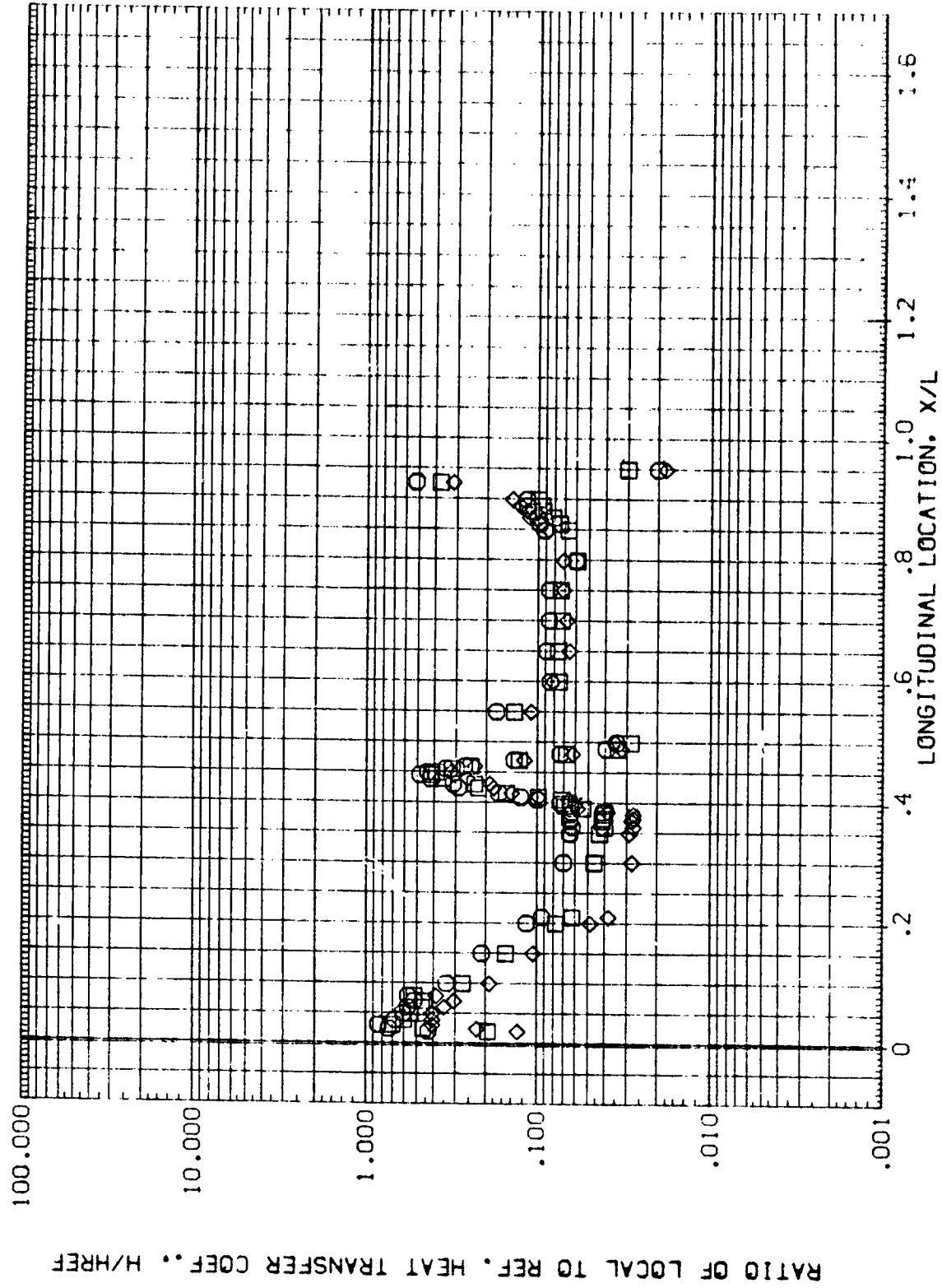


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RV/L

(RNBFI5)  
(RNBFI4)  
(RNBFI3)

ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

-5.000  
.000  
5.000

5.000  
5.000  
5.000

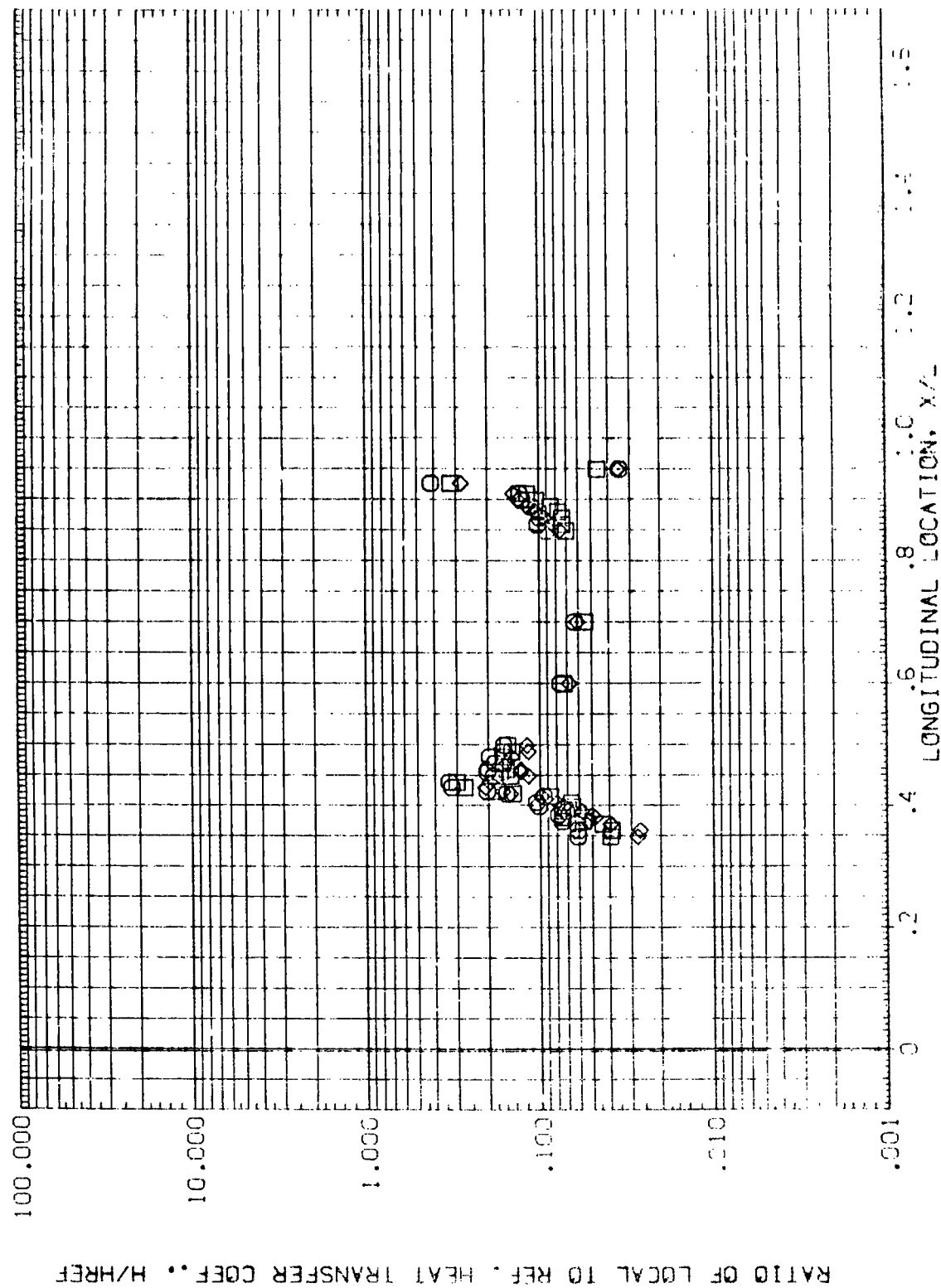


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW. HT = .900 PHI = 191.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI5) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI4) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI3) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

ALPHA  
-5.000  
5.000

BETA  
.000  
.000  
.000

RN/L  
5.000  
5.000  
5.000

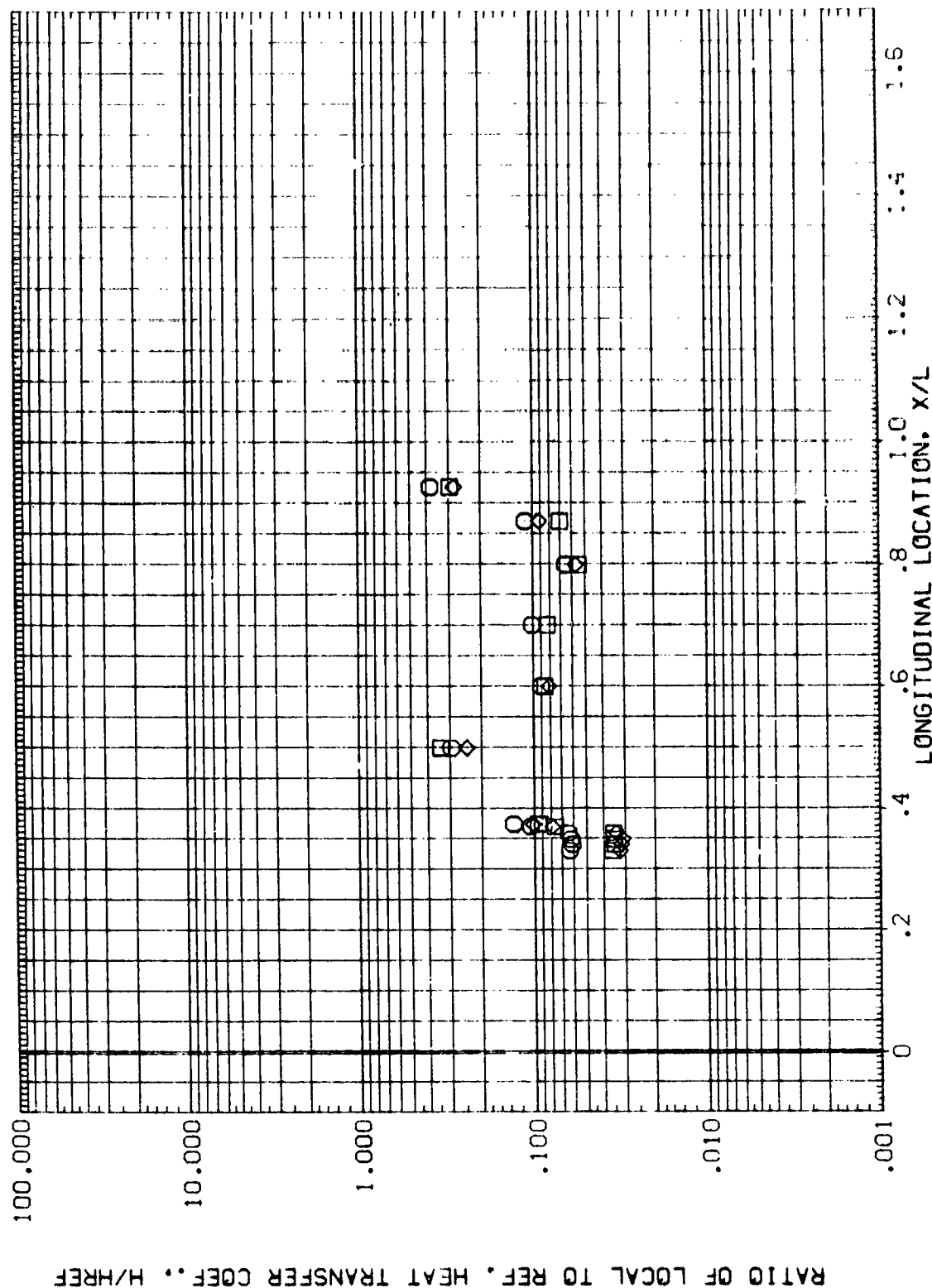


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 197.000

DATA SET SY-80L CONFIGURATION DESCRIPTION

(R4BF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
(R4BF14) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
(R4BF13) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

ALPHA BETA  
-5.000 .000  
5.000 .000

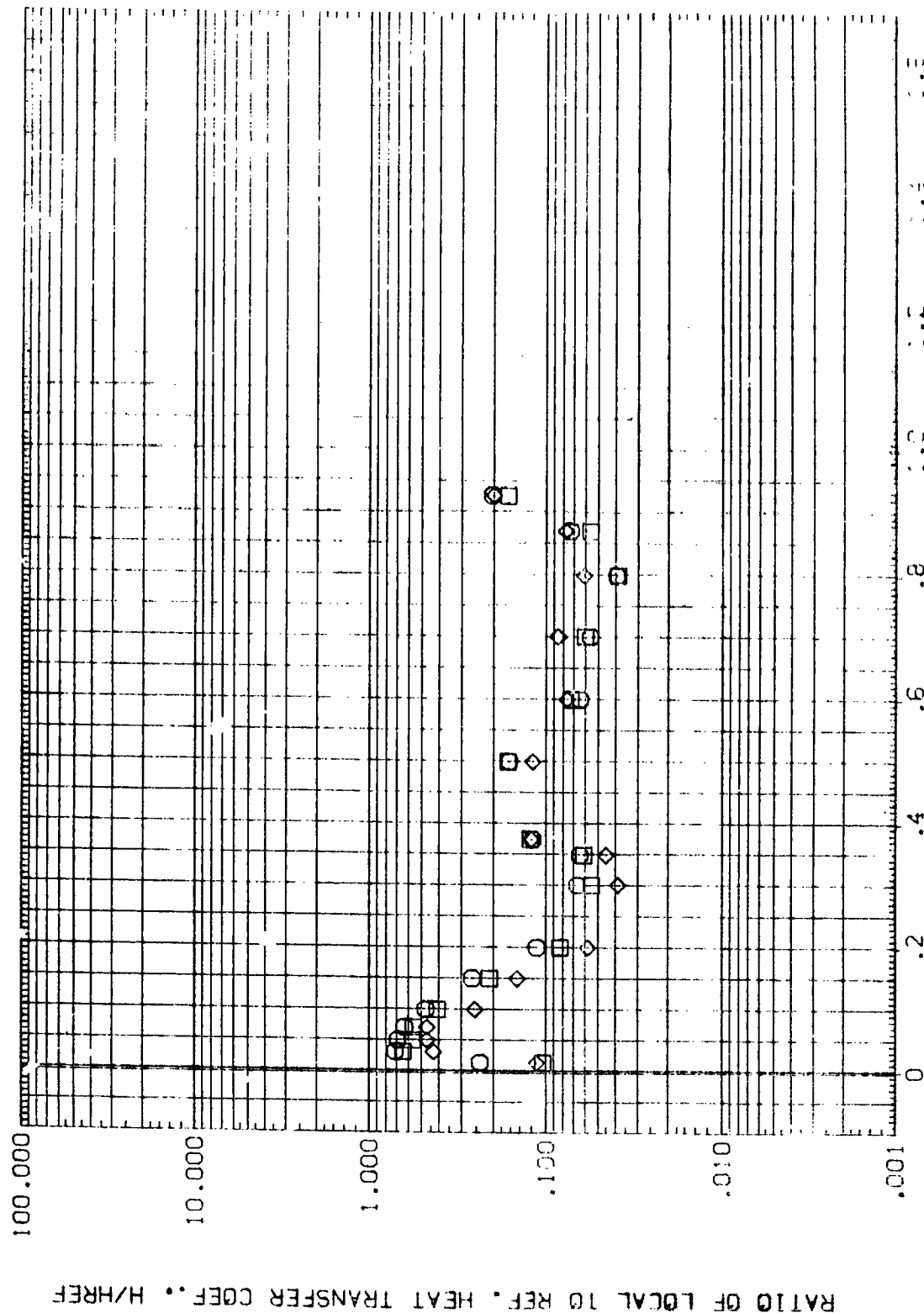


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 209.800



DATA SET SYMBOL  
(RNB15)  
(RNB14)  
(RNB13)

CONFIGURATION DESCRIPTION

ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

ALPHA  
-5.000  
5.000

BETA  
.000  
.000  
.000

RAW/L  
5.000  
5.000  
5.000

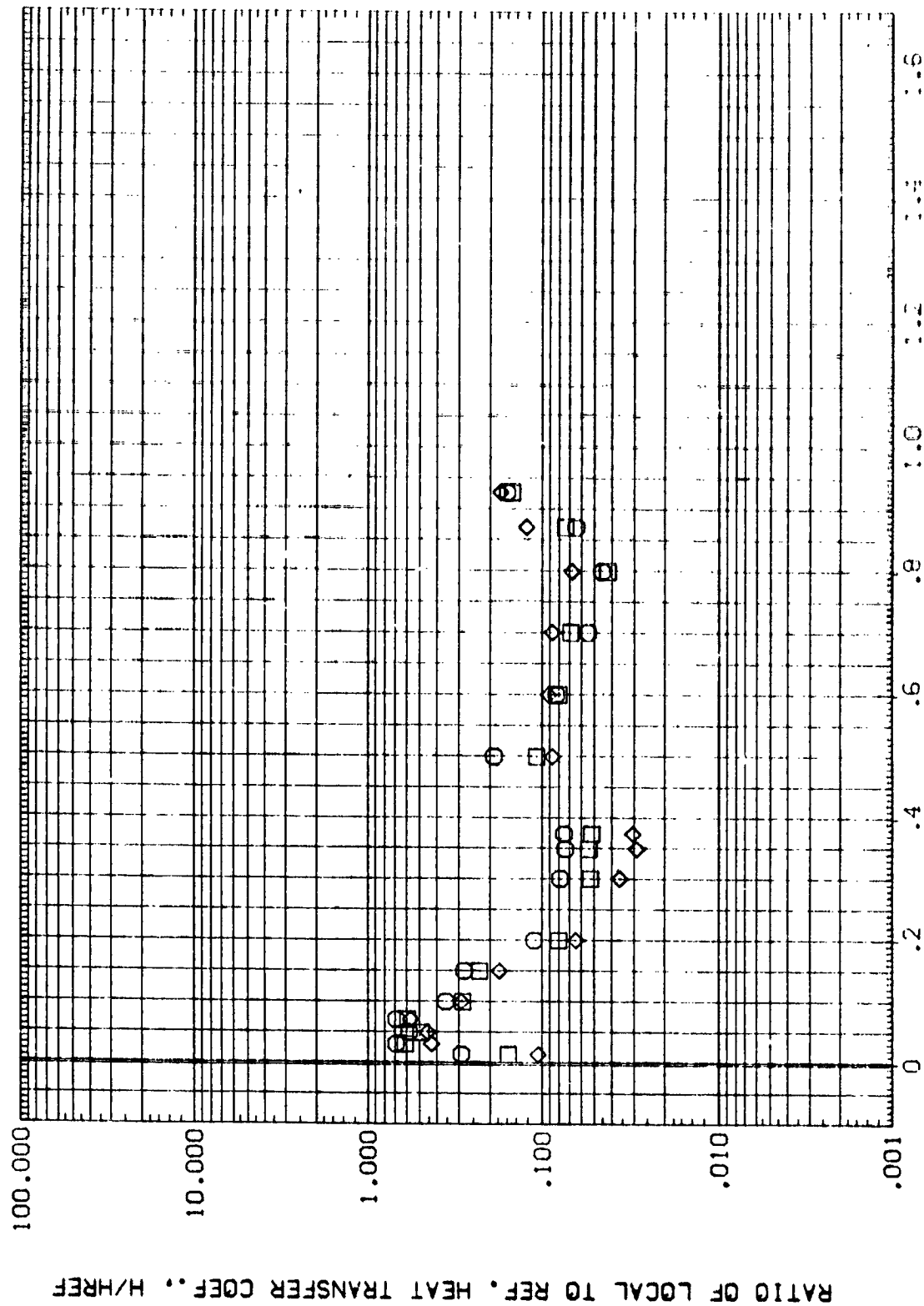


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK. BETA = 0.0

MACH = 5.300 HAW/HT = .900 P+I = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNSF17)      ARC3.5-211(IH48)JET /NIPPLE/CLEAN  
 (RNSF18)      ARC3.5-211(IH48)JET /NIPPLE/CLEAN  
 (RNSF19)      ARC3.5-211(IH48)JET /NIPPLE/CLEAN

EXT TANK      EXT TANK  
 EXT TANK      EXT TANK  
 EXT TANK      EXT TANK

ALPHA      BETA  
 .000      .000  
 -5.000      .000  
 -10.000      .000

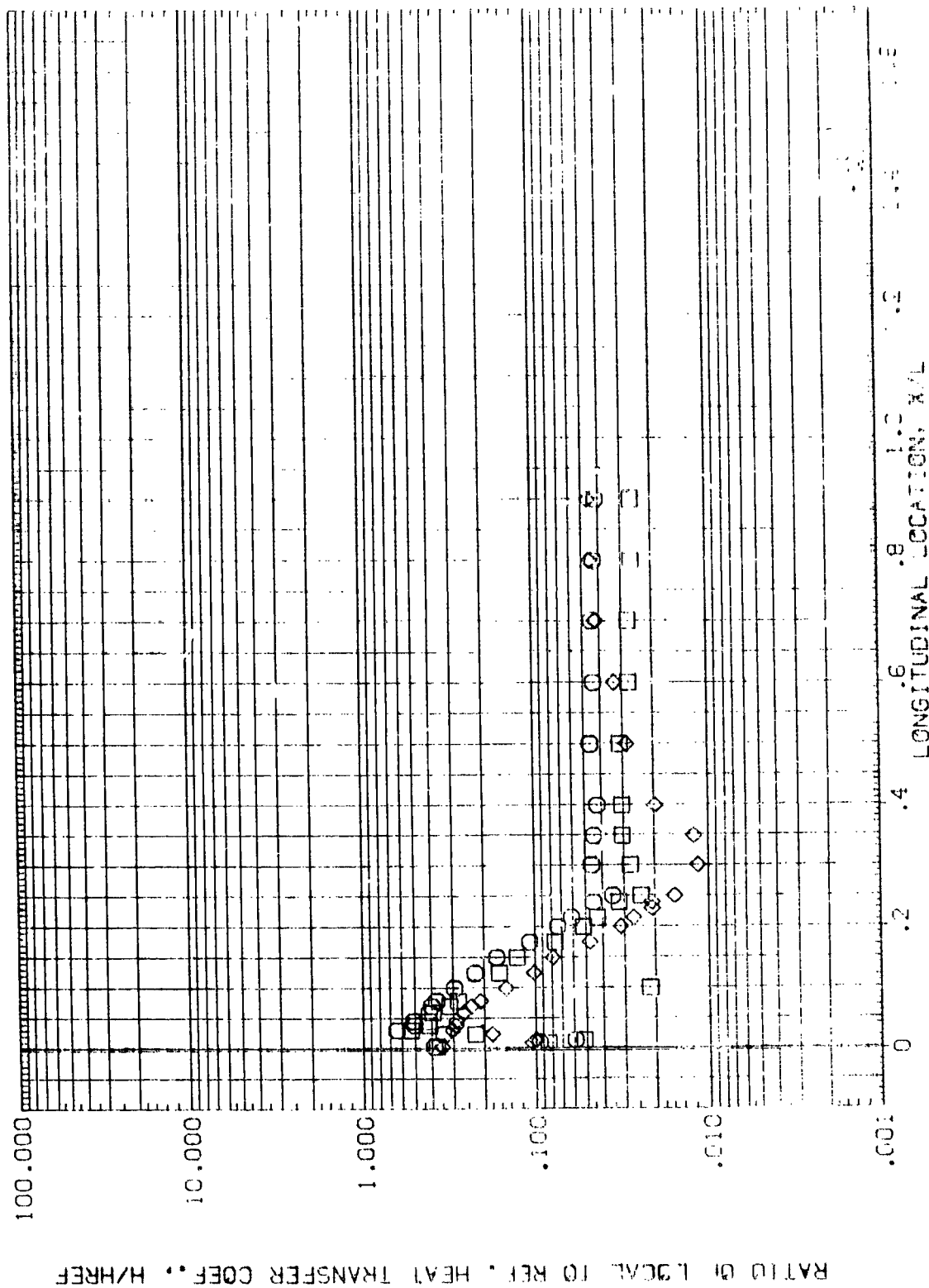


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300      HAW/HREF = .900      PHI = .000      PAGE 180

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RM/L
(RMBF17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	.000	.000	5.000
(RMBF18)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	-5.000	.000	5.000
(RMBF19)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	-10.000	.000	5.000

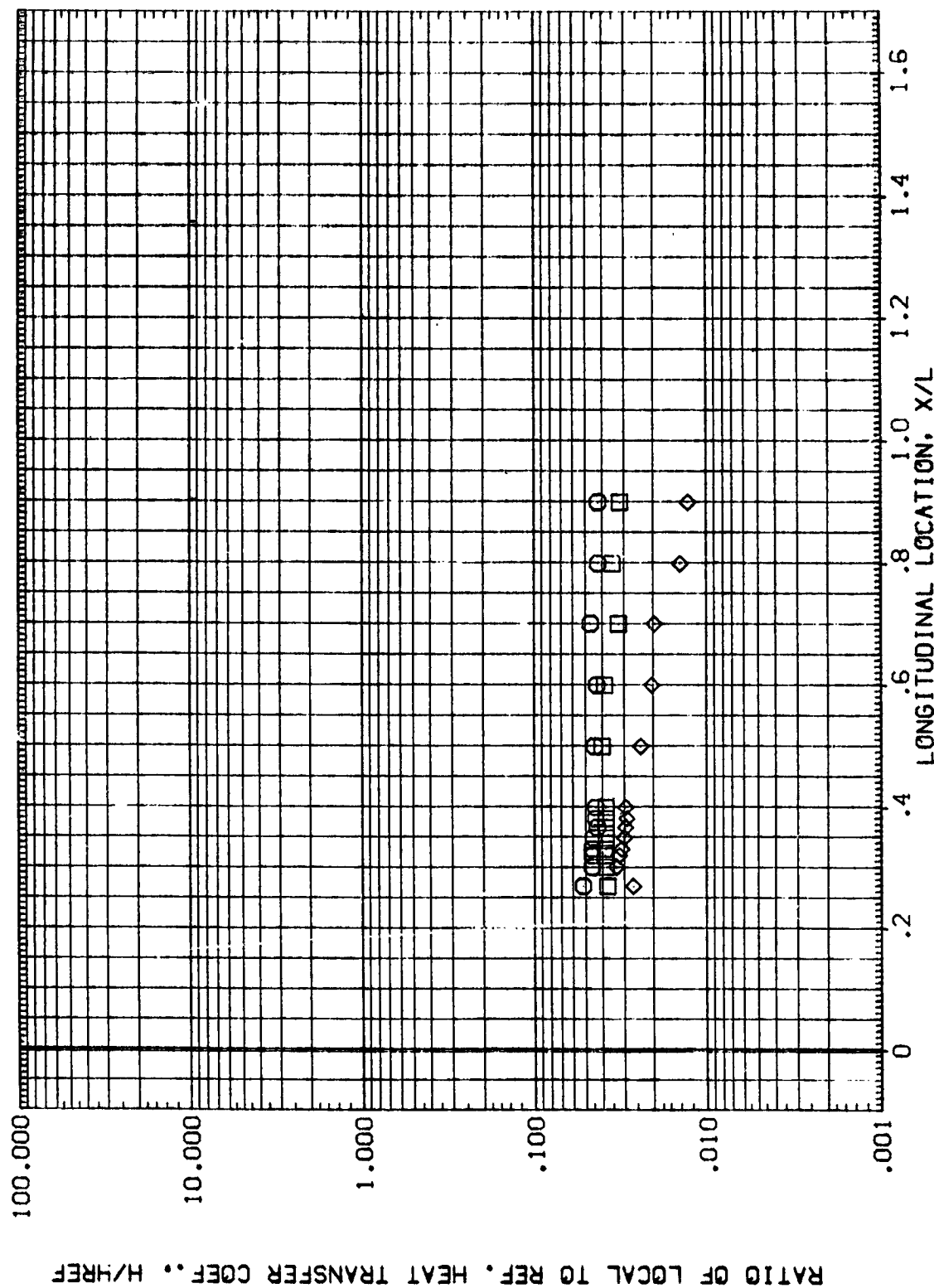


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNB17)	ARC3.5-211(IH48)JET /NIPPLE/CLEAN	EXT TANK	.000	.000	5.000
(RNB18)	ARC3.5-211(IH48)JET /NIPPLE/CLEAN	EXT TANK	-5.000	.000	5.000
(RNB19)	ARC3.5-211(IH48)JET /NIPPLE/CLEAN	EXT TANK	-10.000	.000	5.000

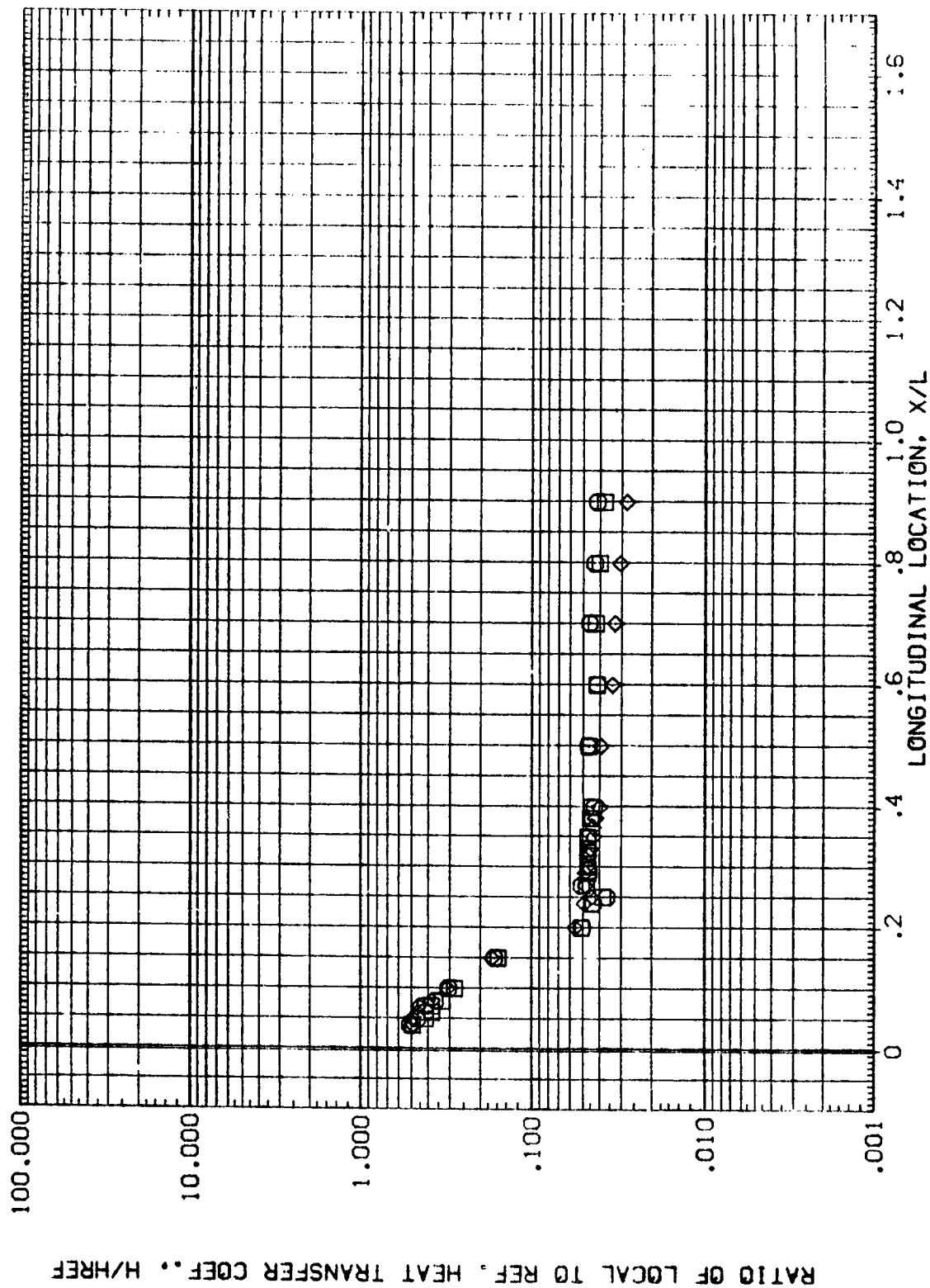


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RM/L
(RMBF17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	.000	.000	5.000
(RMBF18)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	-5.000	.000	5.000
(RMBF19)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	-10.000	.000	5.000

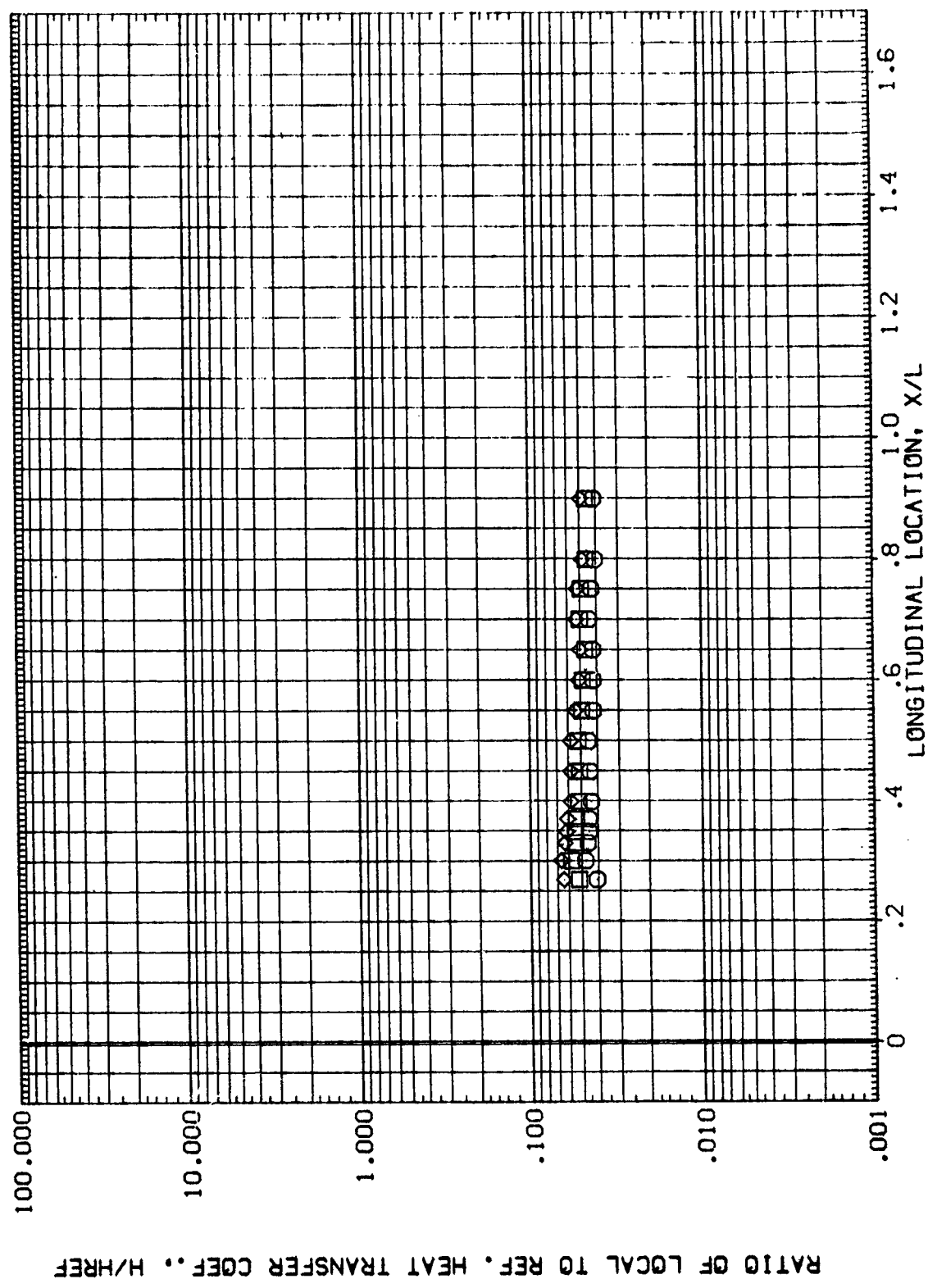


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB17) ARC3.5-211(IH48)ET /NIPPLE/CLEAN  
 (RNB18) ARC3.5-211(IH48)ET /NIPPLE/CLEAN  
 (RNB19) ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK EXT TANK  
 ALPHA BETA RN/L  
 .000 .000 5.000  
 -5.000 .000 5.000  
 -10.000 .000 5.000

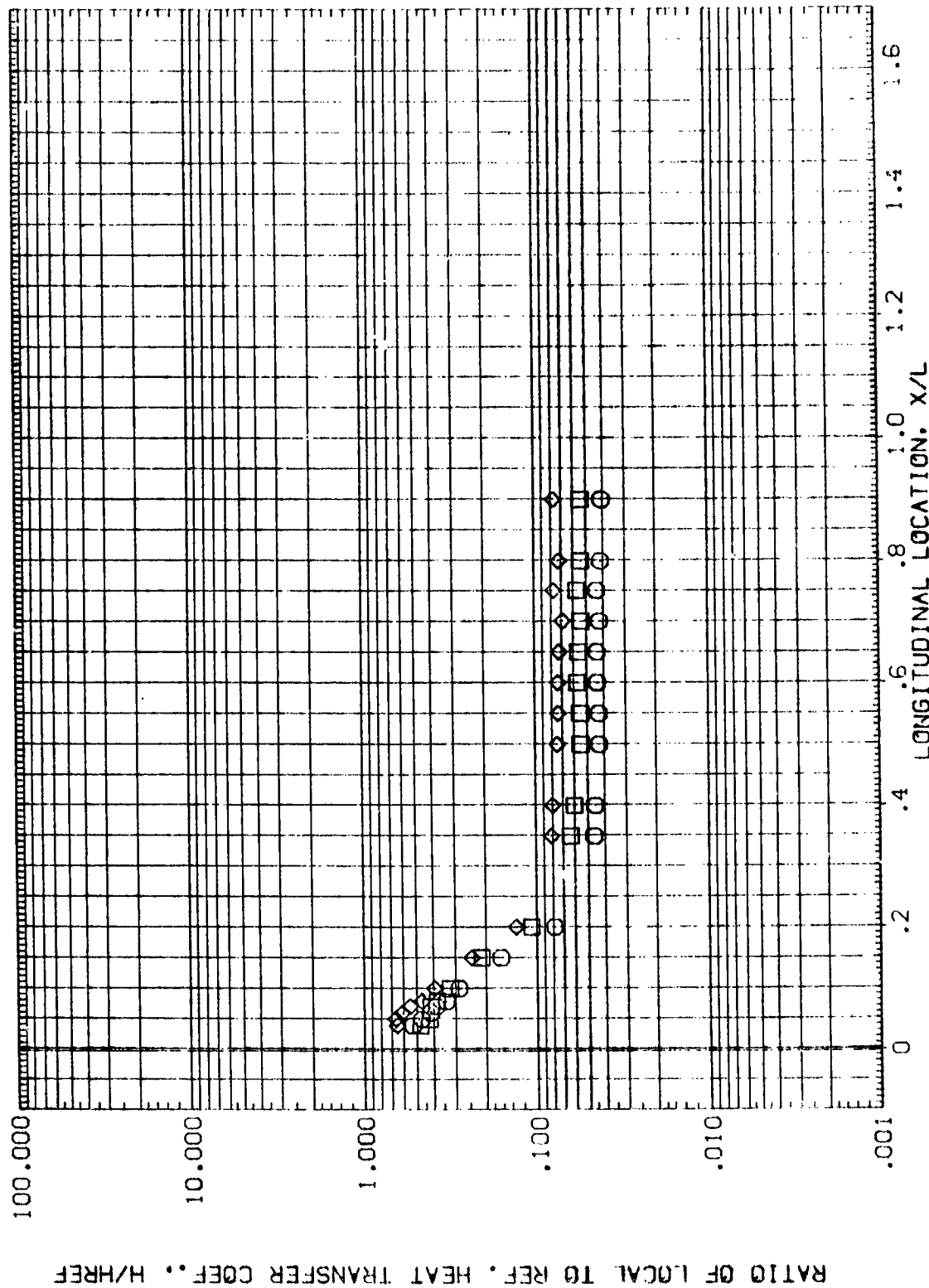


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/H<sub>T</sub> = .900 PHI = 135.000 PAGE 296

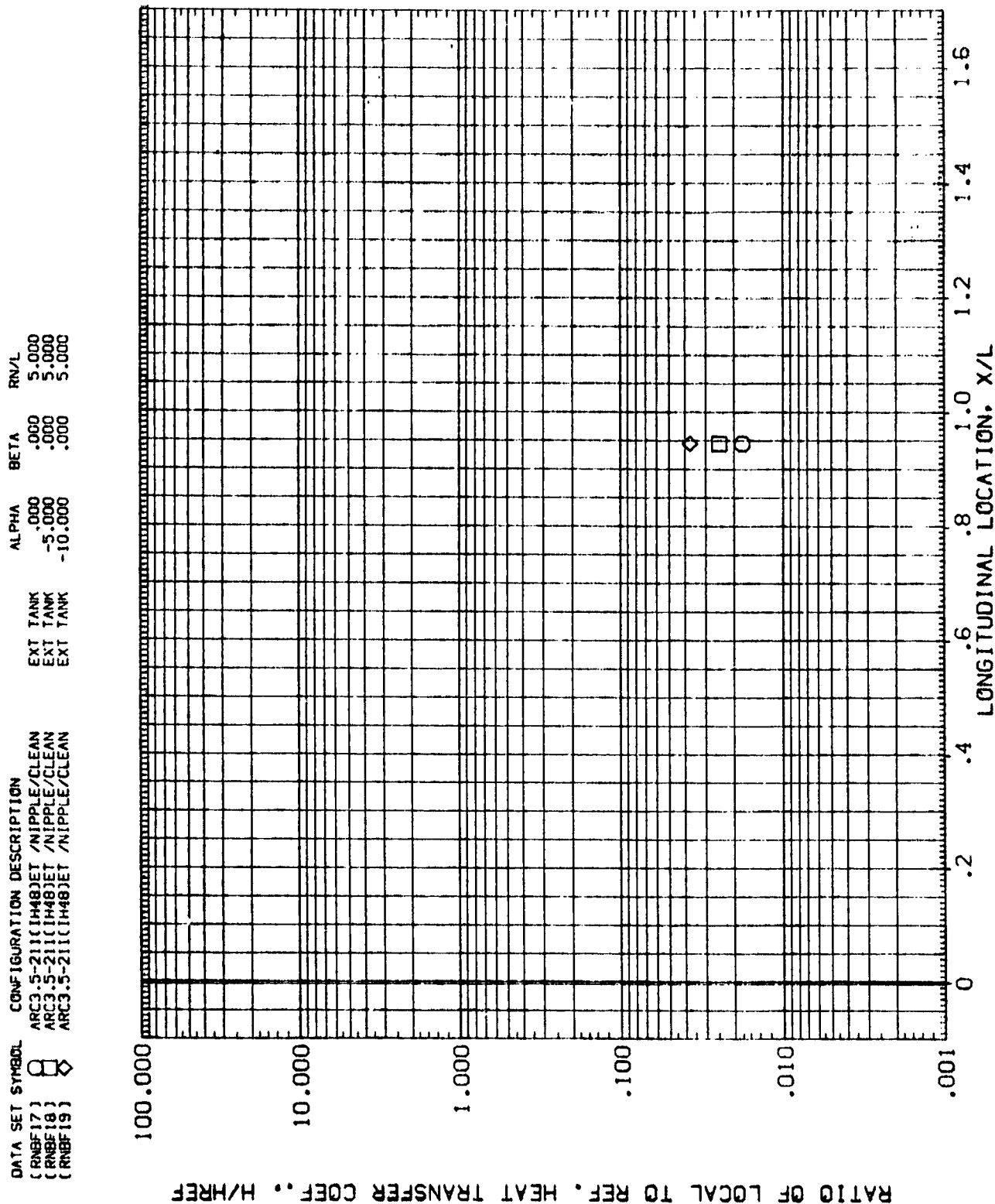


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300    HAW/HT = .900    PHI = 154.380

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

(RNBFI8)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -5.000      .000      5.000

(RNBFI9)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      -10.000      .000      5.000

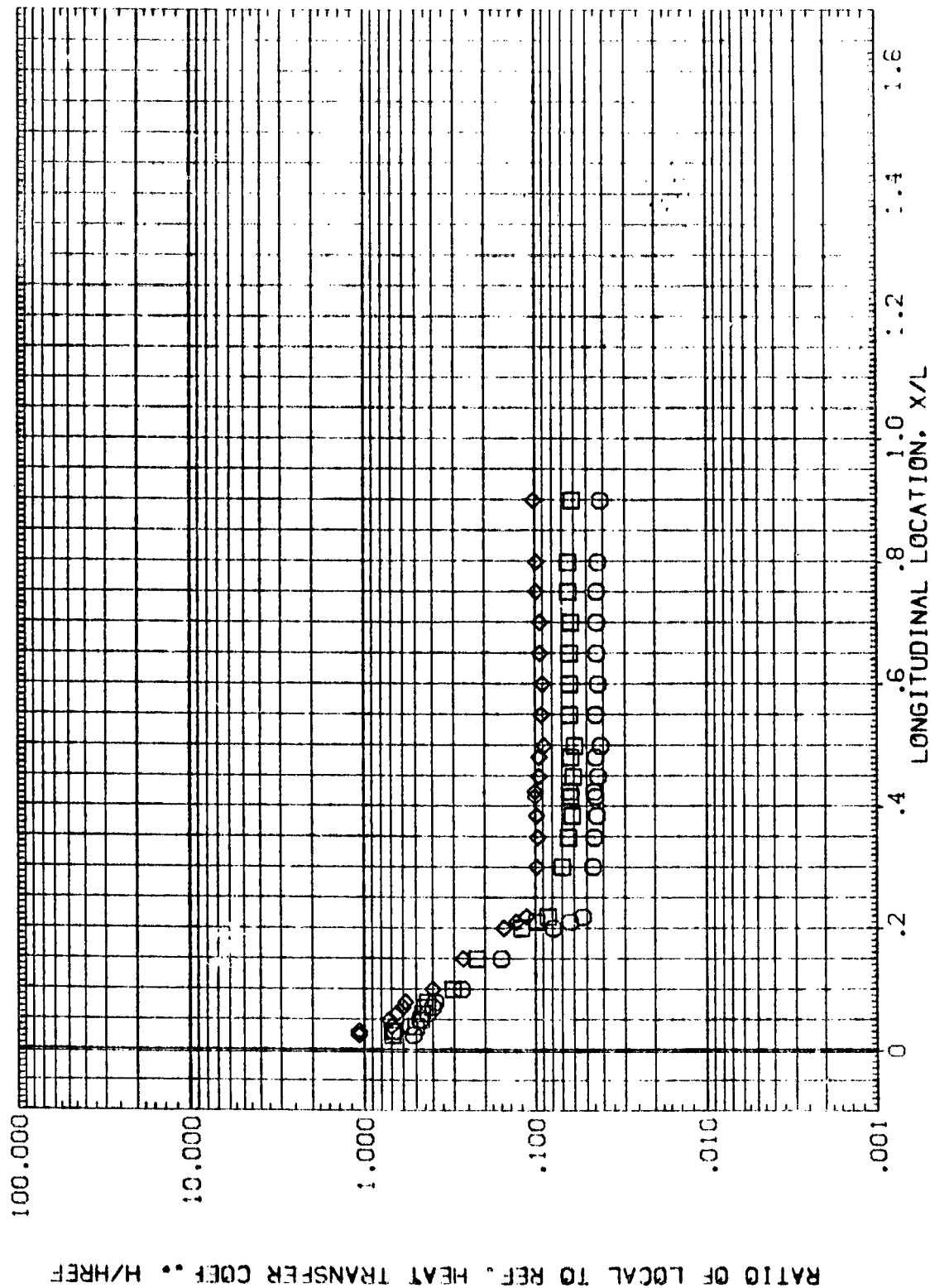


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 180.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNGF17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	.000	.000	5.000
(RNGF18)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	-5.000	.000	5.000
(RNGF19)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	-10.000	.000	5.000

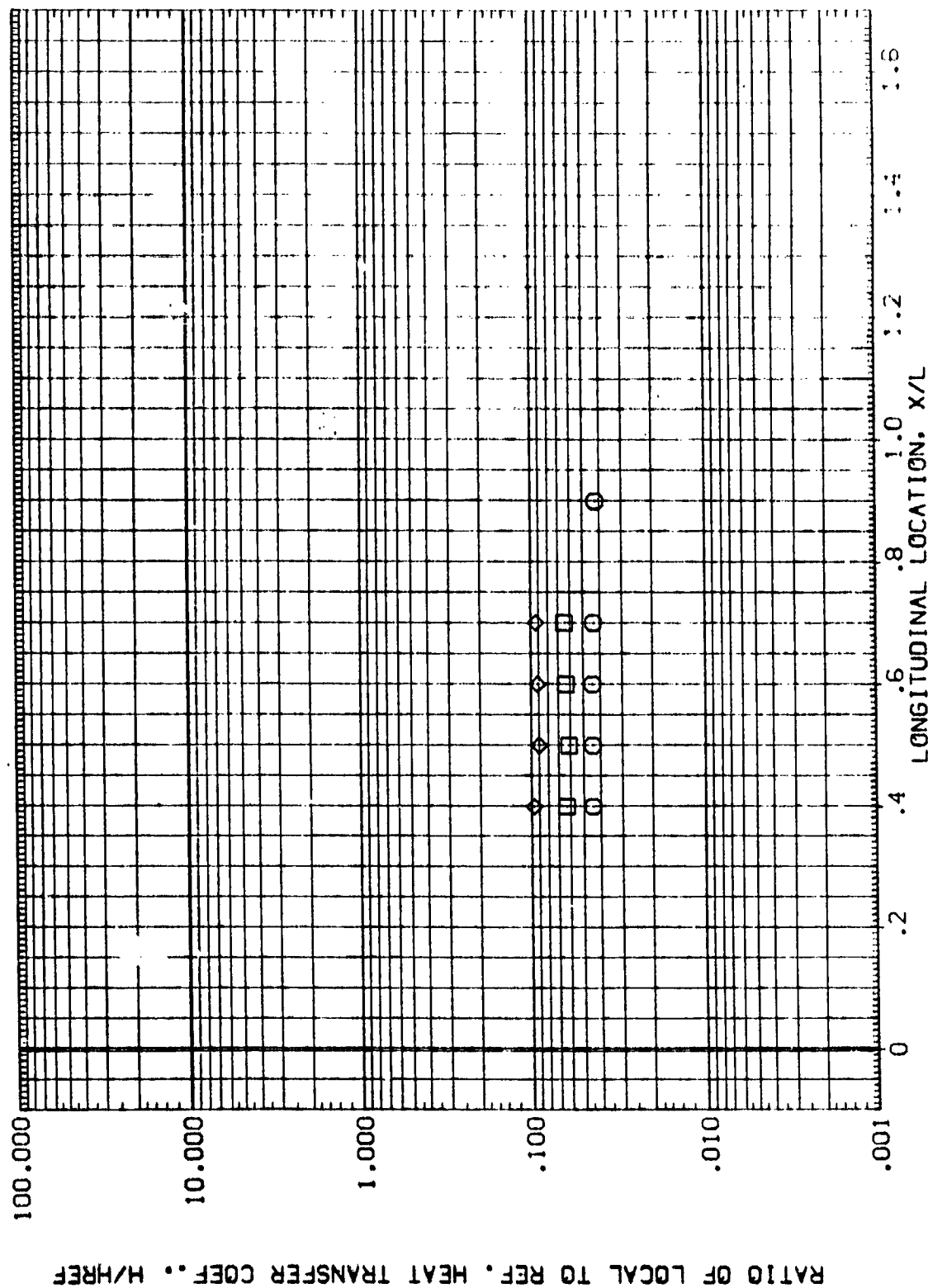


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RABF17) ARC3.5-211C(H48)ET /NIPPLE/CLEAN  
 (RABF18) ARC3.5-211C(H48)ET /NIPPLE/CLEAN  
 (RABF19) ARC3.5-211C(H48)ET /NIPPLE/CLEAN

EXT TANK EXT TANK  
 EXT TANK EXT TANK  
 EXT TANK EXT TANK

ALPHA BETA  
 .000 .000  
 -5.000 .000  
 -10.000 .000

RN/L  
 5.000  
 5.000  
 5.000

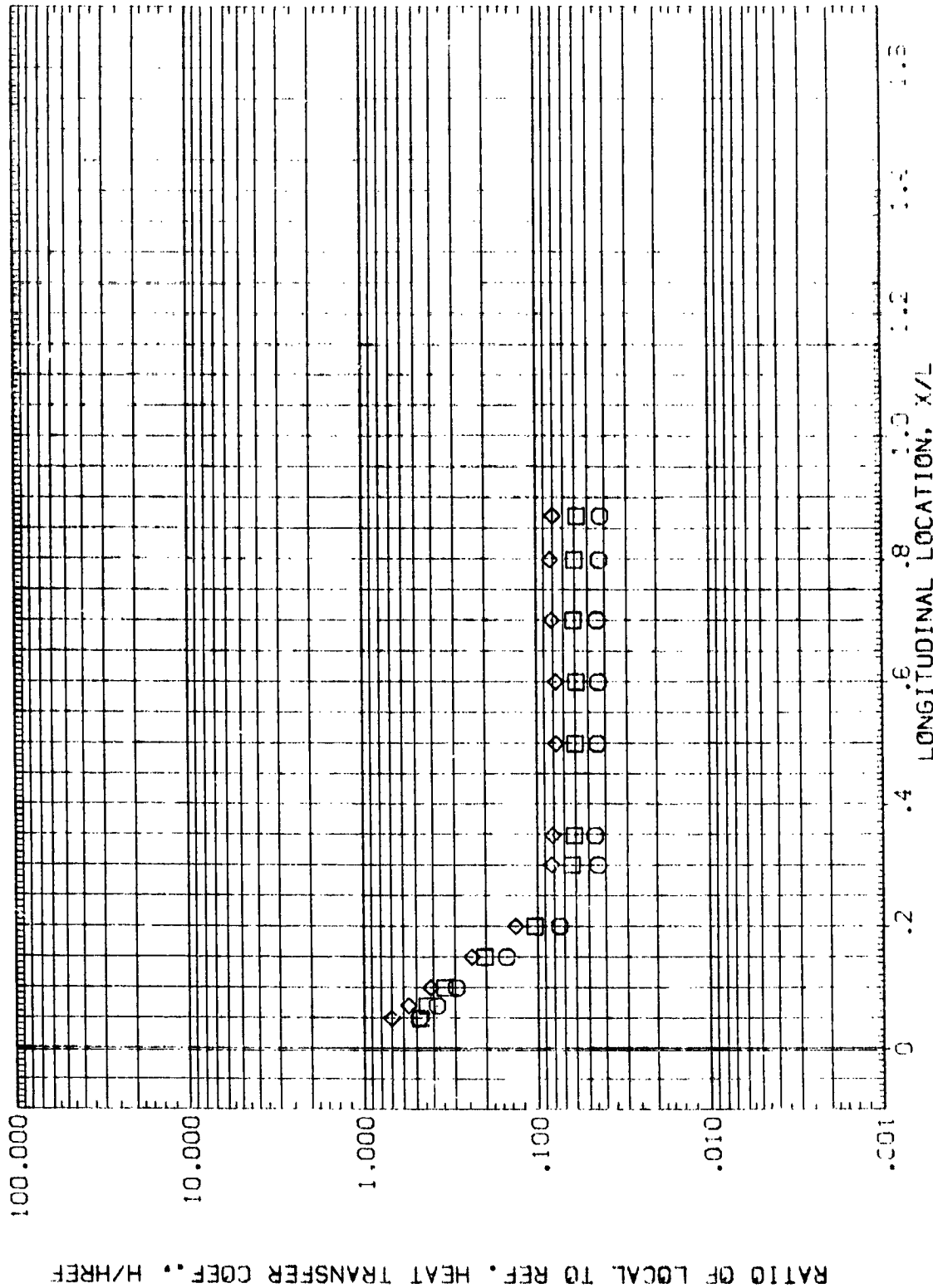


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	Re/L
(RMBF20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	.000	.000	5.000
(RMBF21)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	5.000	.000	5.000
(RMBF22)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	10.000	.000	5.000

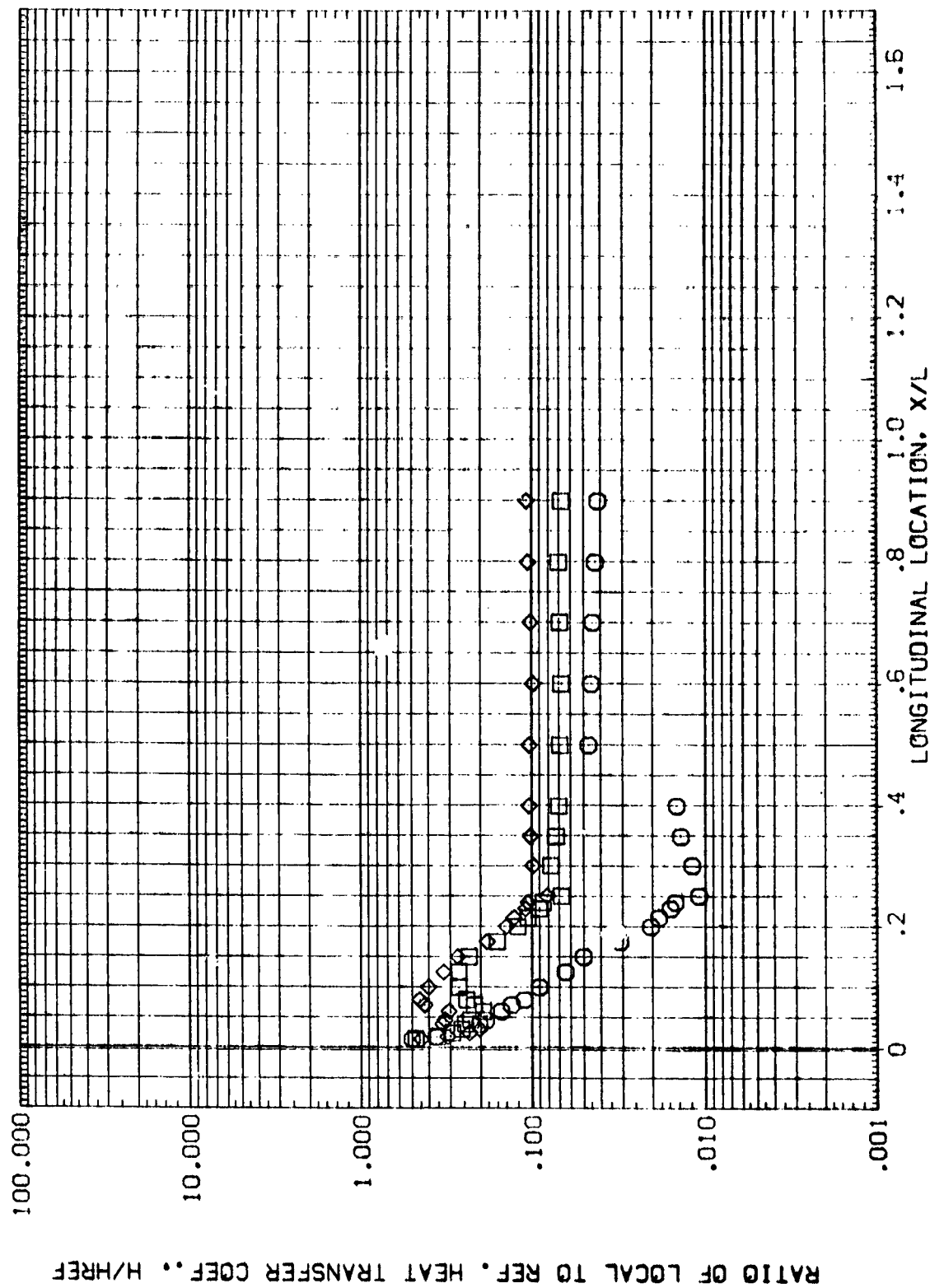


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB20) ARC3.5-211(I48)ET /OGIVE /CLEAN  
 (RNB21) ARC3.5-211(I48)ET /OGIVE /CLEAN  
 (RNB22) ARC3.5-211(I48)ET /OGIVE /CLEAN

EXT TANK  
 EXT TANK  
 EXT TANK

ALPHA  
 .003  
 5.003  
 10.003

BETA  
 .003  
 .003  
 .003

RN/L  
 5.003  
 5.003  
 5.003

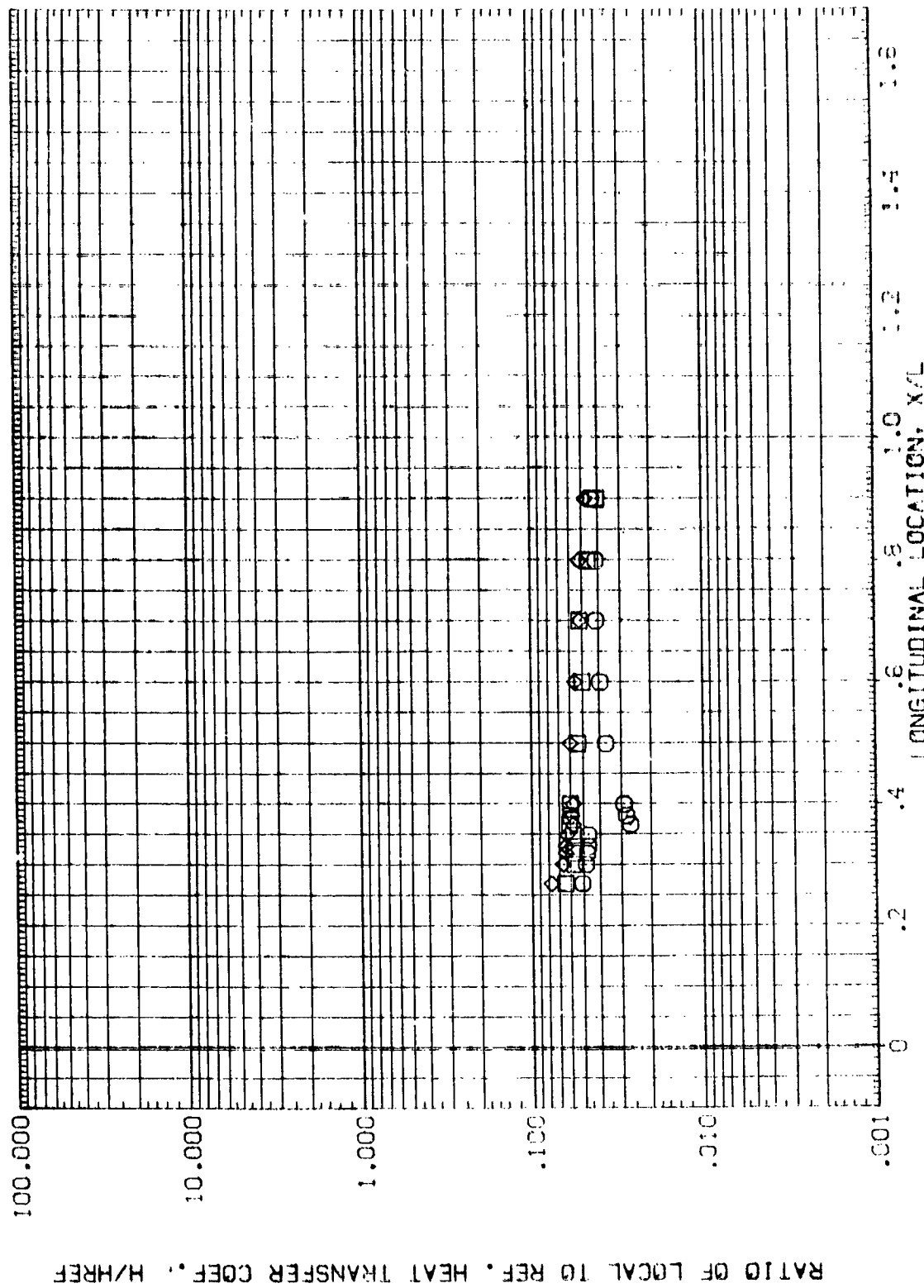


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 2.0

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RMBF20) ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (RMBF21) ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (RMBF22) ARC3.5-211(IH48)ET /OGIVE /CLEAN

EXT TANK  
 EXT TANK  
 EXT TANK

ALPHA  
 .000  
 5.000  
 10.000

BETA  
 .000  
 .000  
 .000

FN/L  
 5.000  
 5.000  
 5.000

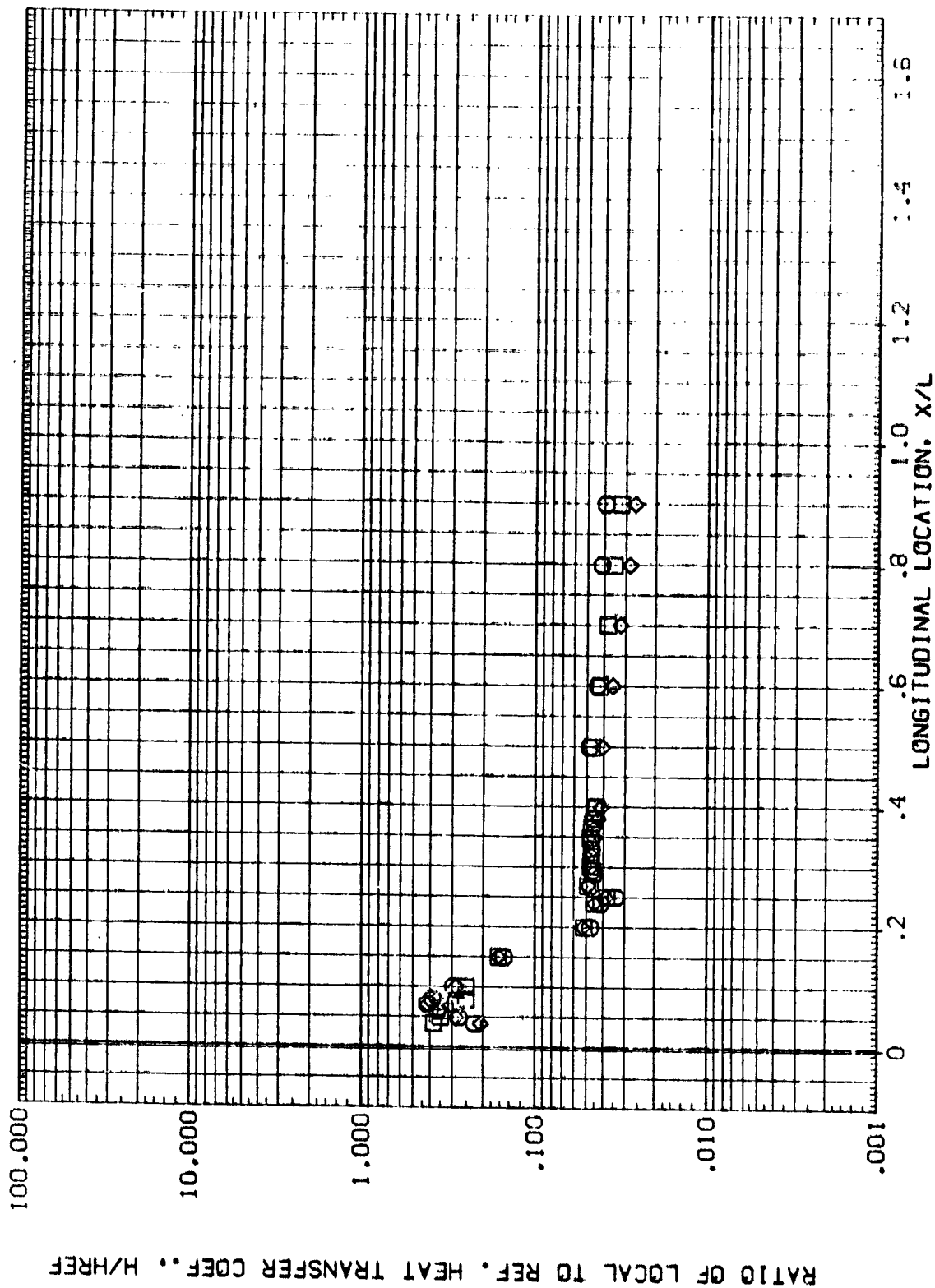


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RAYL

(RNB20)    ARC3.5-211(I48)ET /OGIVE /CLEAN    .000    .000    5.000

(RNB21)    ARC3.5-211(I48)ET /OGIVE /CLEAN    5.000    .000    5.000

(RNB22)    ARC3.5-211(I48)ET /OGIVE /CLEAN    10.000    .000    5.000

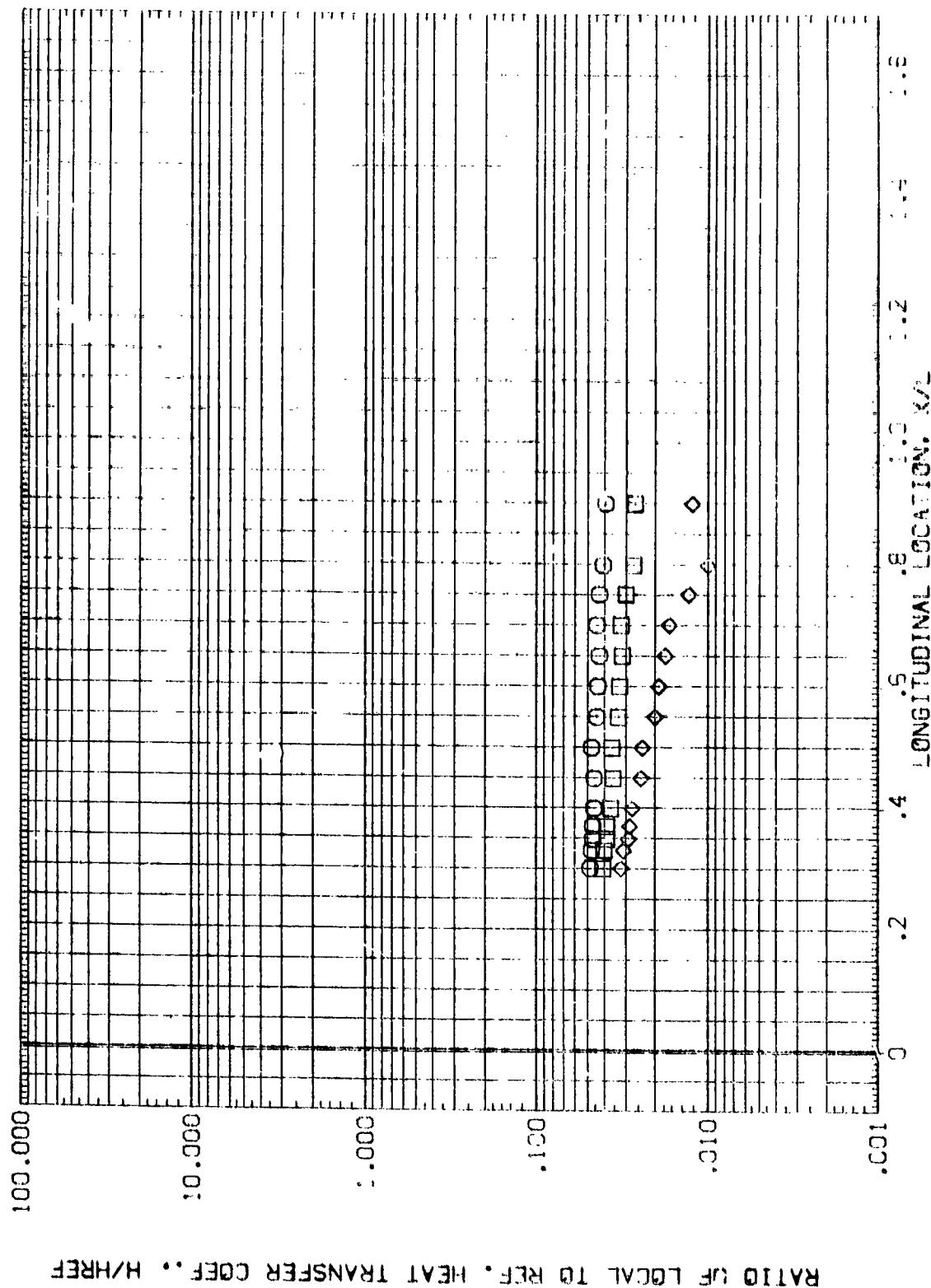


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RM/L
(RMBF20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	.003	.003	5.000
(RMBF21)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	5.000	.003	5.000
(RMBF22)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	10.000	.003	5.000

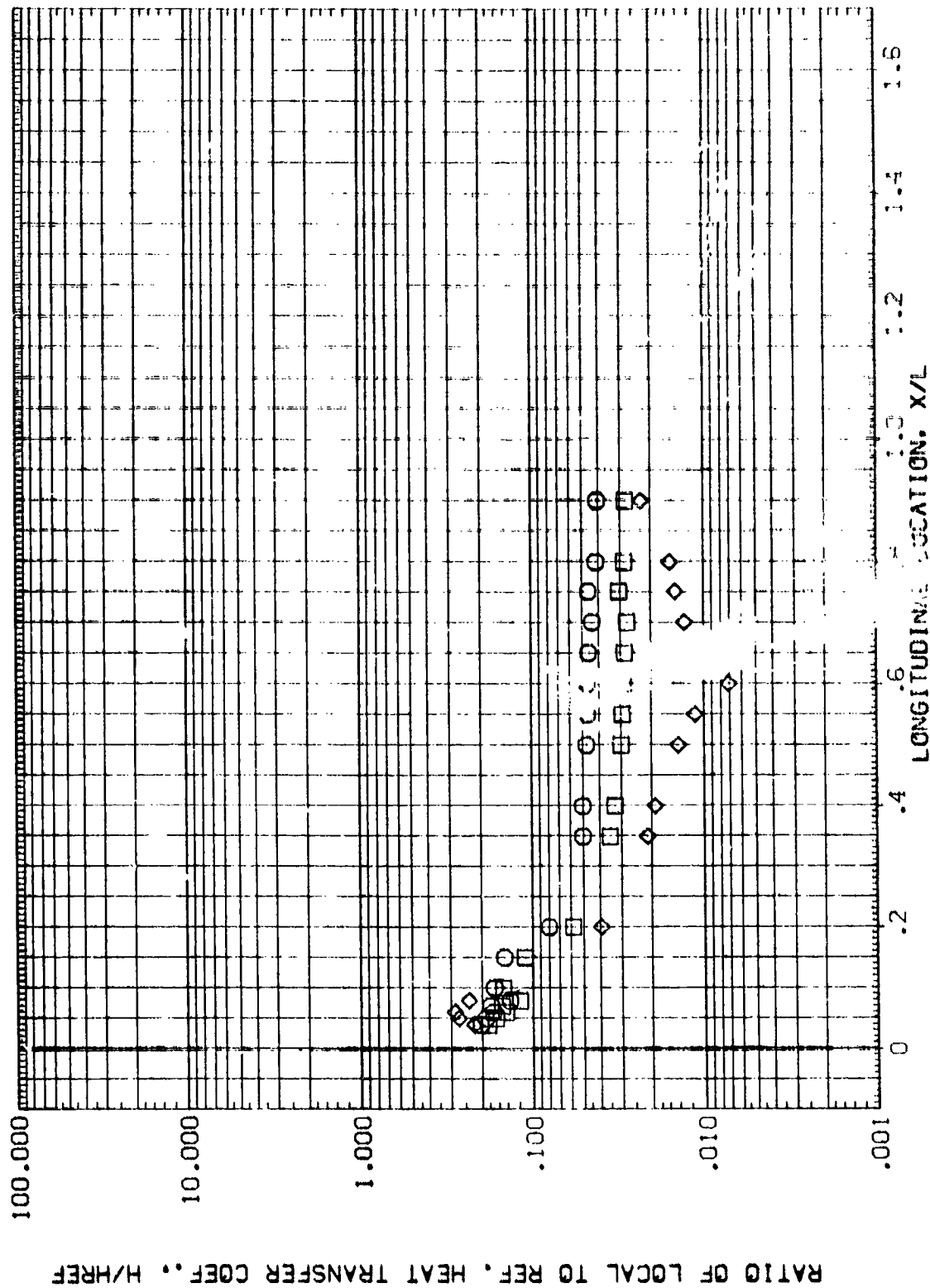


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (R3BF20)      ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (R3BF21)      ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (R3BF22)      ARC3.5-211(IH48)ET /OGIVE /CLEAN

EXT TANK      EXT TANK      EXT TANK  
 EXT TANK      EXT TANK      EXT TANK  
 EXT TANK      EXT TANK      EXT TANK

ALPHA      BETA      RN/L  
 .000      .000      5.000  
 5.000      .000      5.000  
 10.000      .000      5.000

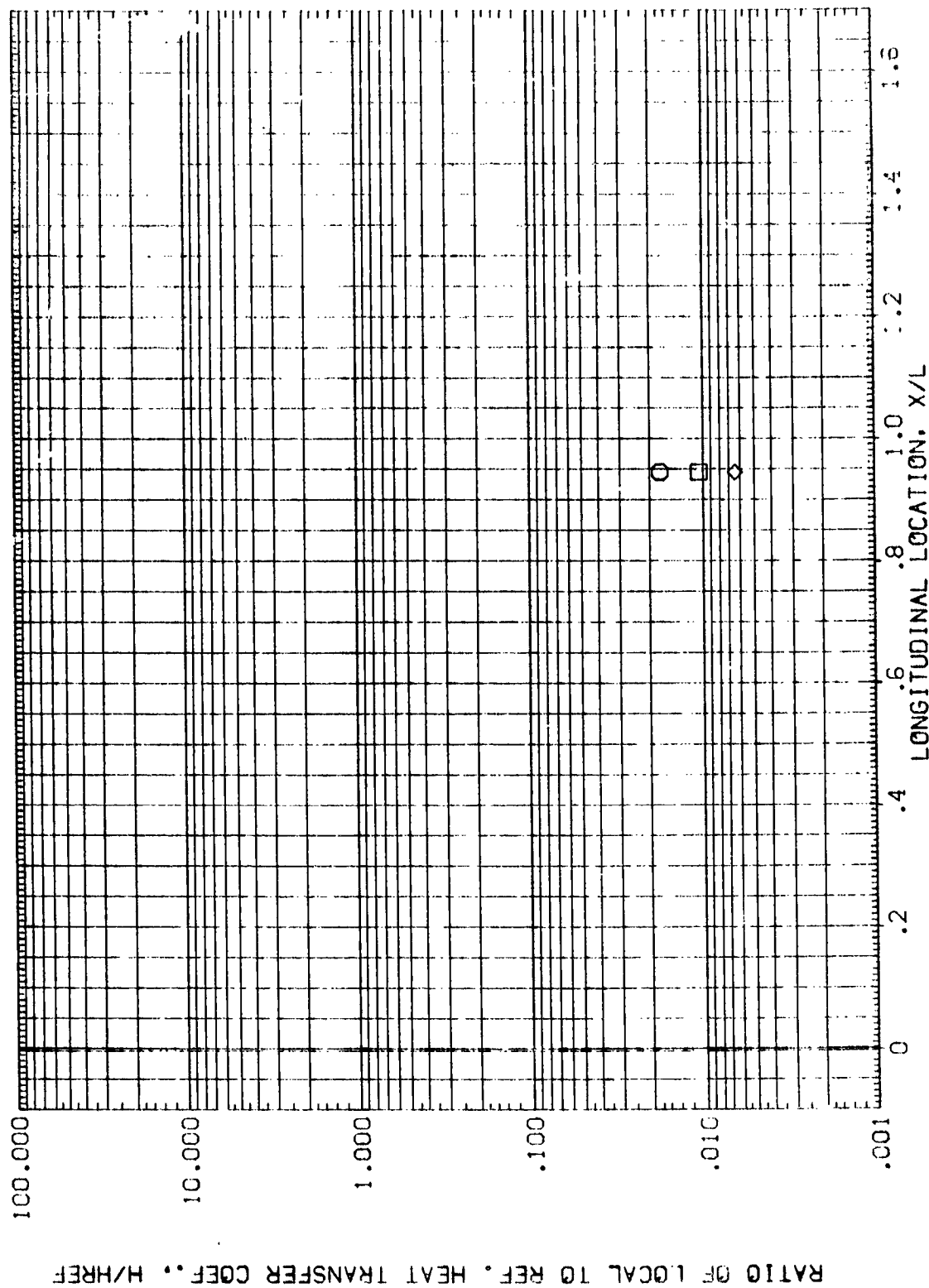


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 154.980



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RMBF20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	.000	.000	5.000
(RMBF21)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	5.000	.000	5.000
(RMBF22)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	10.000	.000	5.000

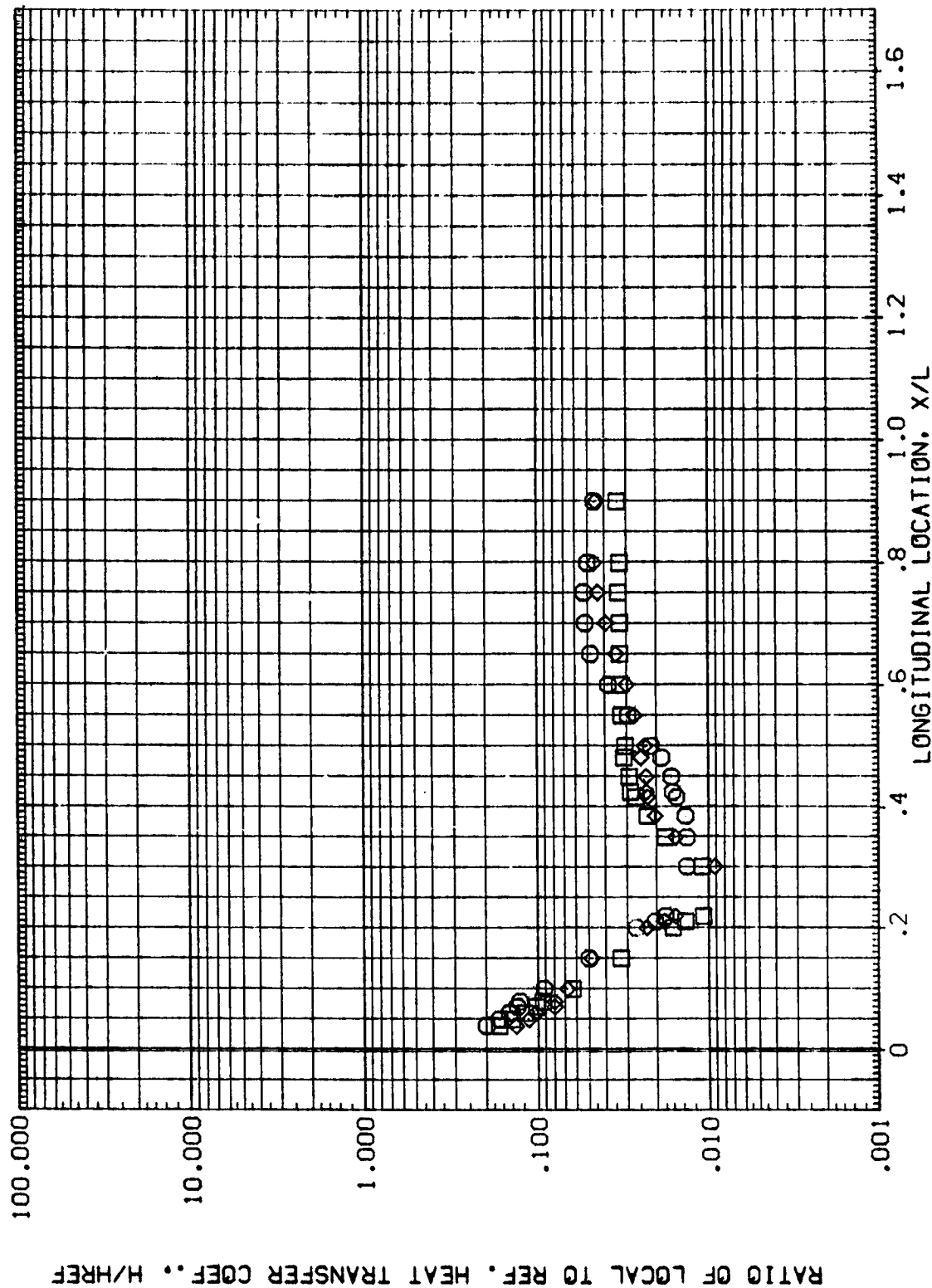


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK,  $BETA = 0.0$

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNF20)      ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (RNF21)      ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (RNF22)      ARC3.5-211(IH48)ET /OGIVE /CLEAN

EXT TANK      ALPHA      BETA      RN/L  
 EXT TANK      .000      .000      5.000  
 EXT TANK      5.000      .000      5.000  
 EXT TANK      10.000      .000      5.000

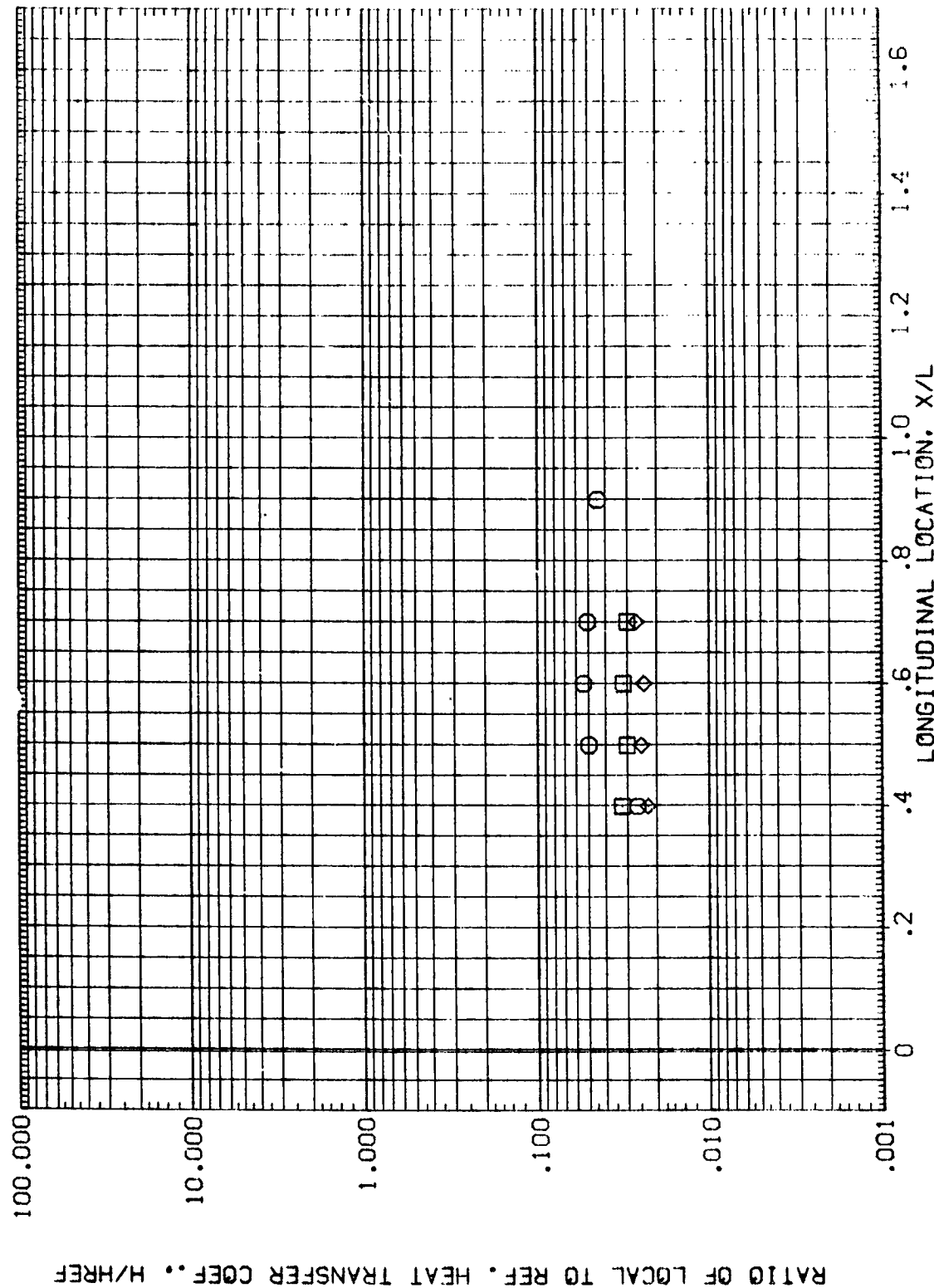


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300    HAW/HT = .900    PHI = 191.250

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNB20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	.000	.000	5.000
(RNB21)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	5.000	.000	5.000
(RNB22)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	10.000	.000	5.000

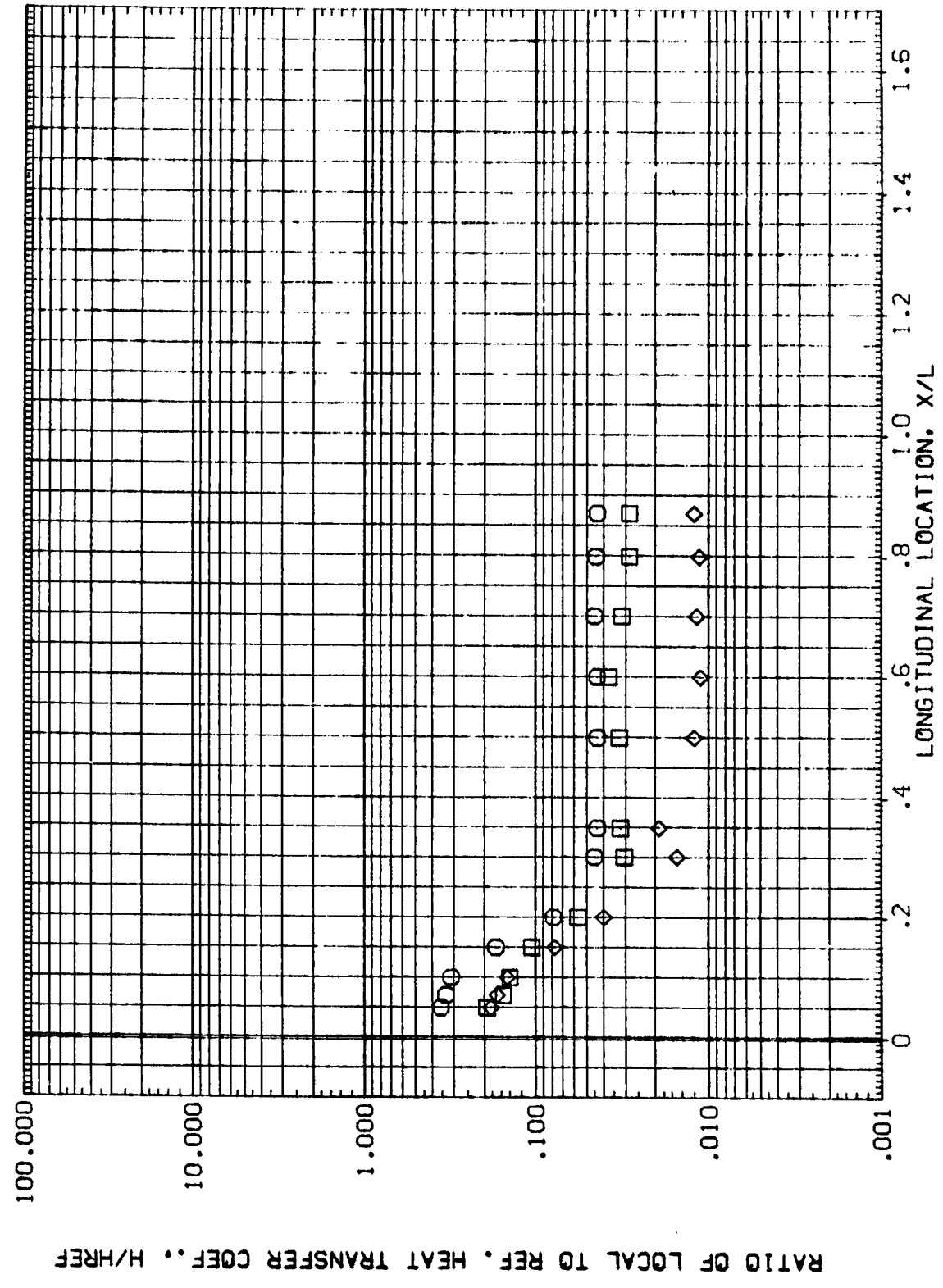


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNB25)  
(RNB27)  
(RNB26)

ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK  
ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK  
ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA BETA RN/L  
.000 .000 5.000  
5.000 .000 5.000  
10.000 .000 5.000

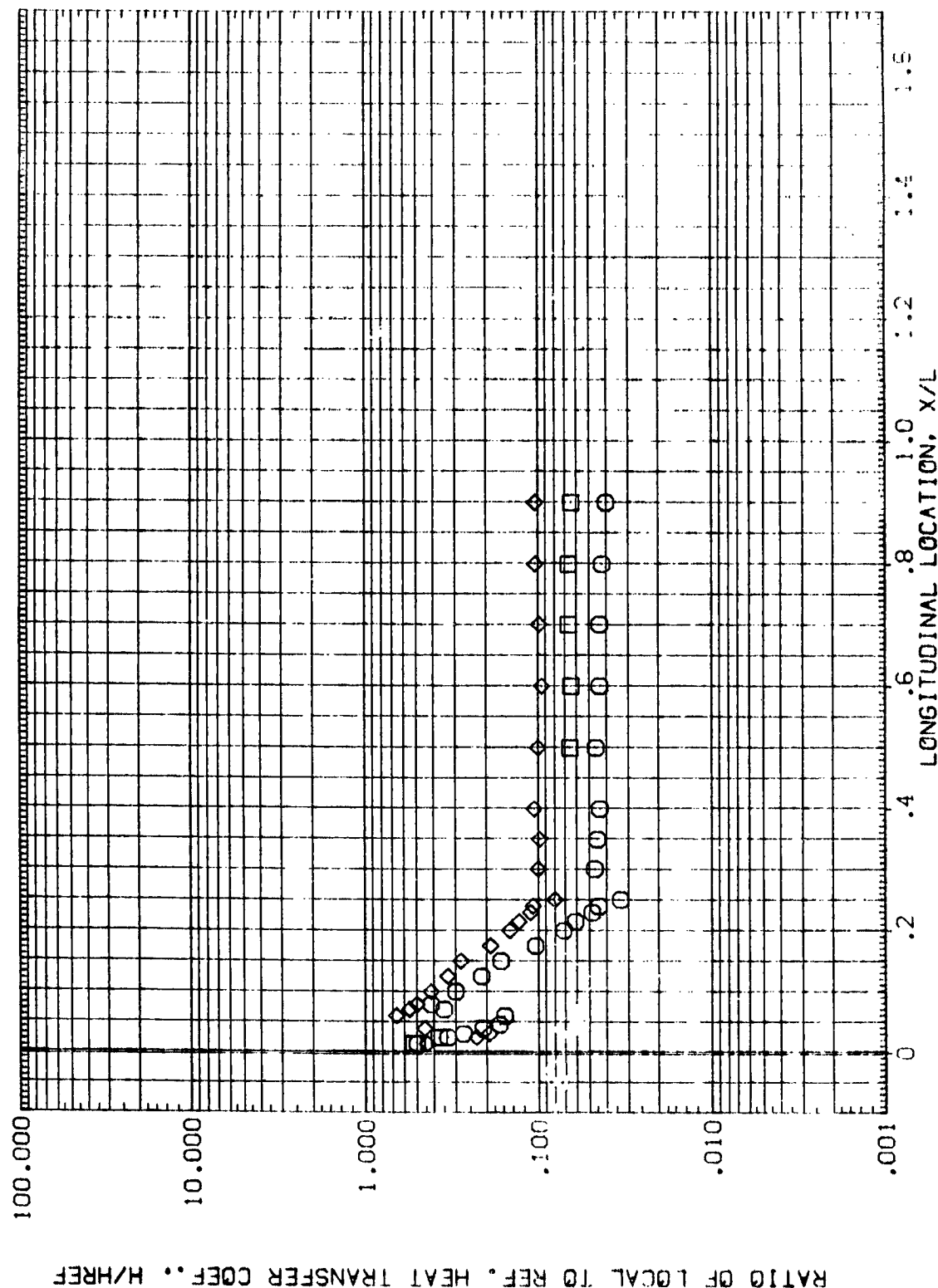


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RMBF25)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	.000	.000	5.000
(RMBF27)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	5.000	.000	5.000
(RMBF26)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	10.000	.000	5.000

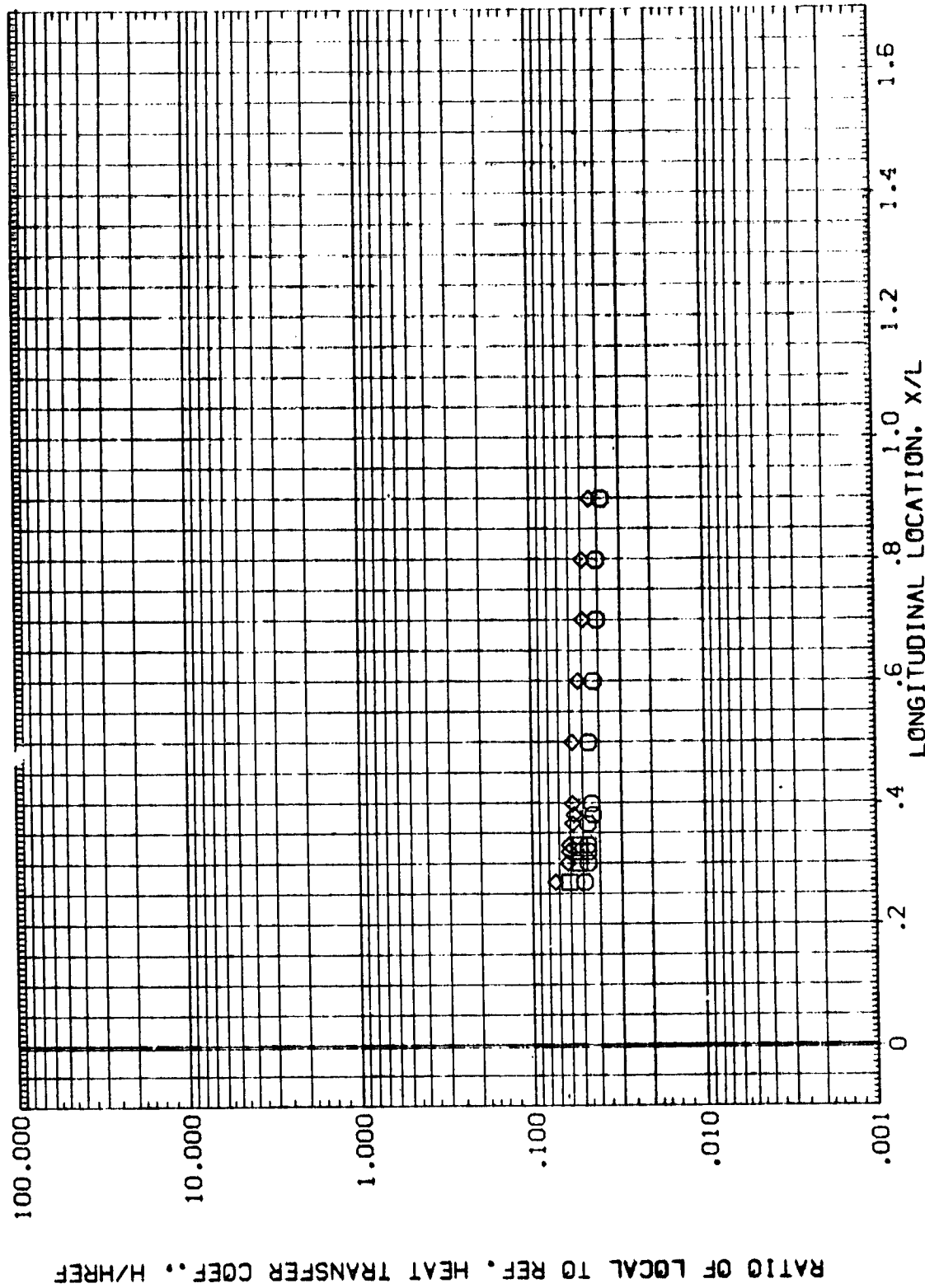


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK,  $BETA = 0.0$

MACH = 5.300 HAW/HT = .900 PHI = 67.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RHSF25) ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK  
 (RHSF27) ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK  
 (RHSF26) ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA BETA RW/L  
 .000 .000 5.000  
 5.000 .000 5.000  
 10.000 .000 5.000

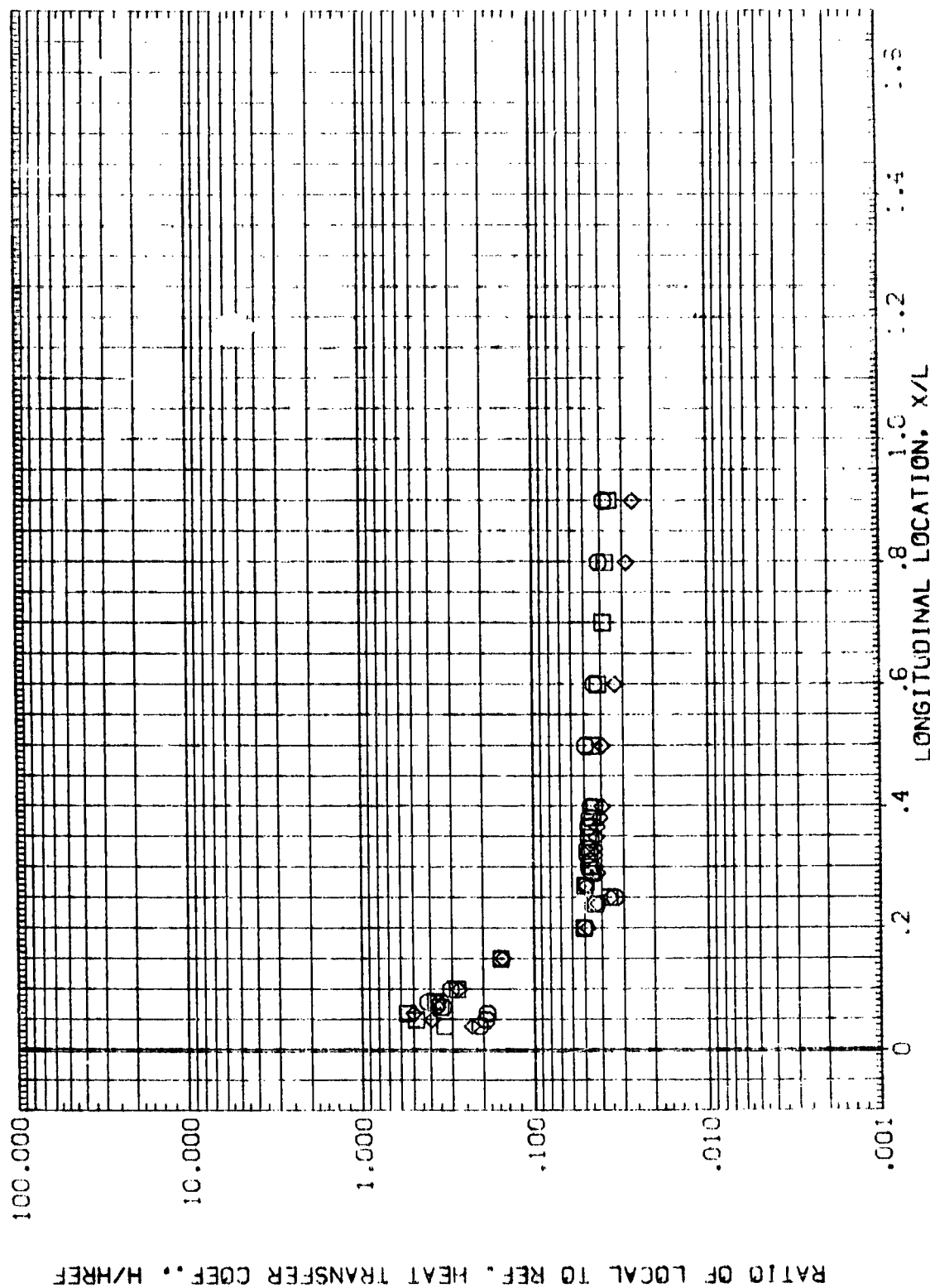


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNGF25)	ARC3.5-211(IH48)ET /OSIVE /CLEAN /TRIP EXT TANK	.000	.000	5.000
(RNGF27)	ARC3.5-211(IH48)ET /OSIVE /CLEAN /TRIP EXT TANK	5.000	.000	5.000
(RNGF26)	ARC3.5-211(IH48)ET /OSIVE /CLEAN /TRIP EXT TANK	10.000	.000	5.000

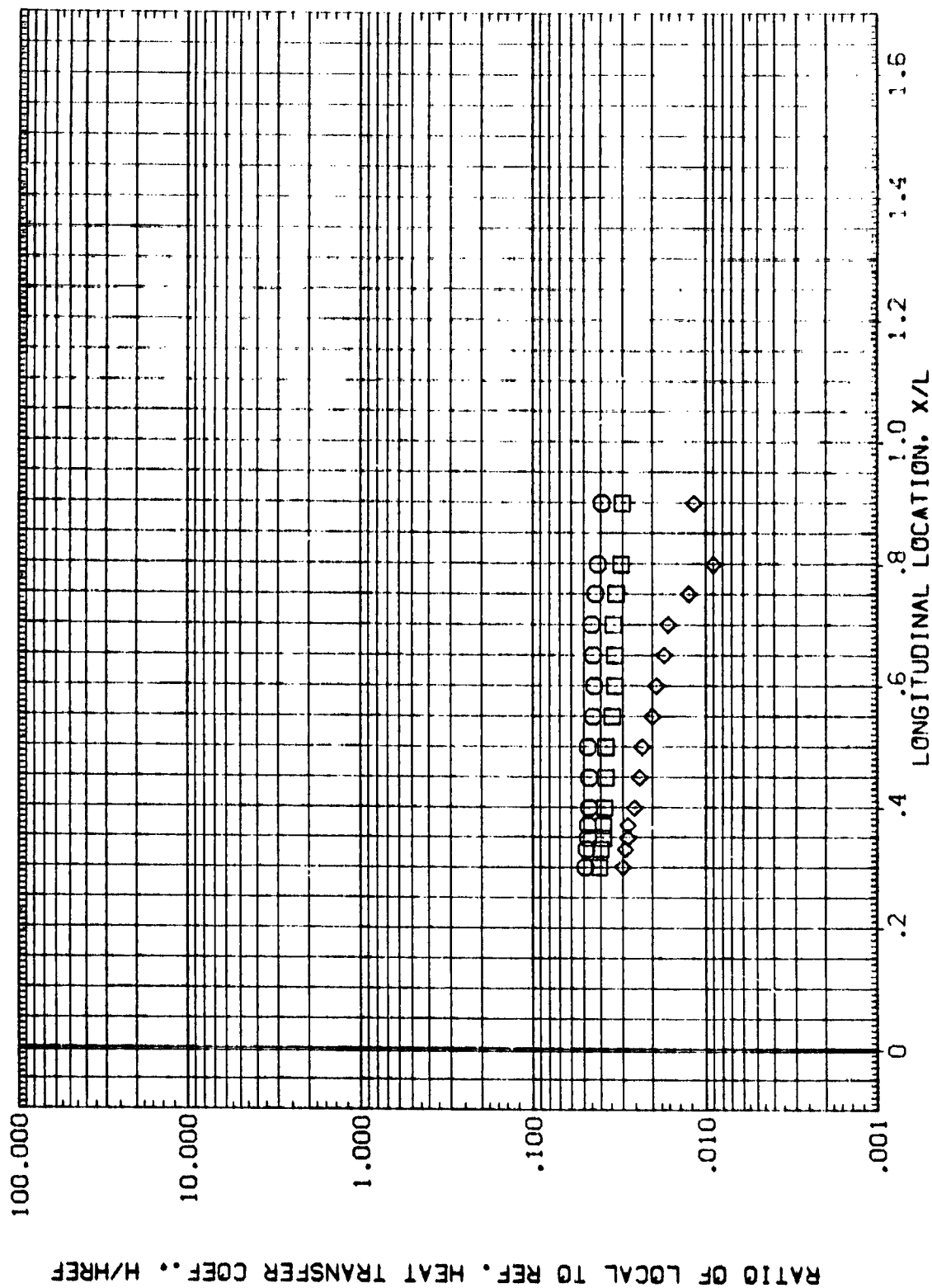


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK,  $BETA = 0.0$

MACH = 5.300 HAW/HT = .900 PHI = 1:2.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RNB25)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	.000	.000	5.000
(RNB27)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	5.000	.000	5.000
(RNB26)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	10.000	.000	5.000

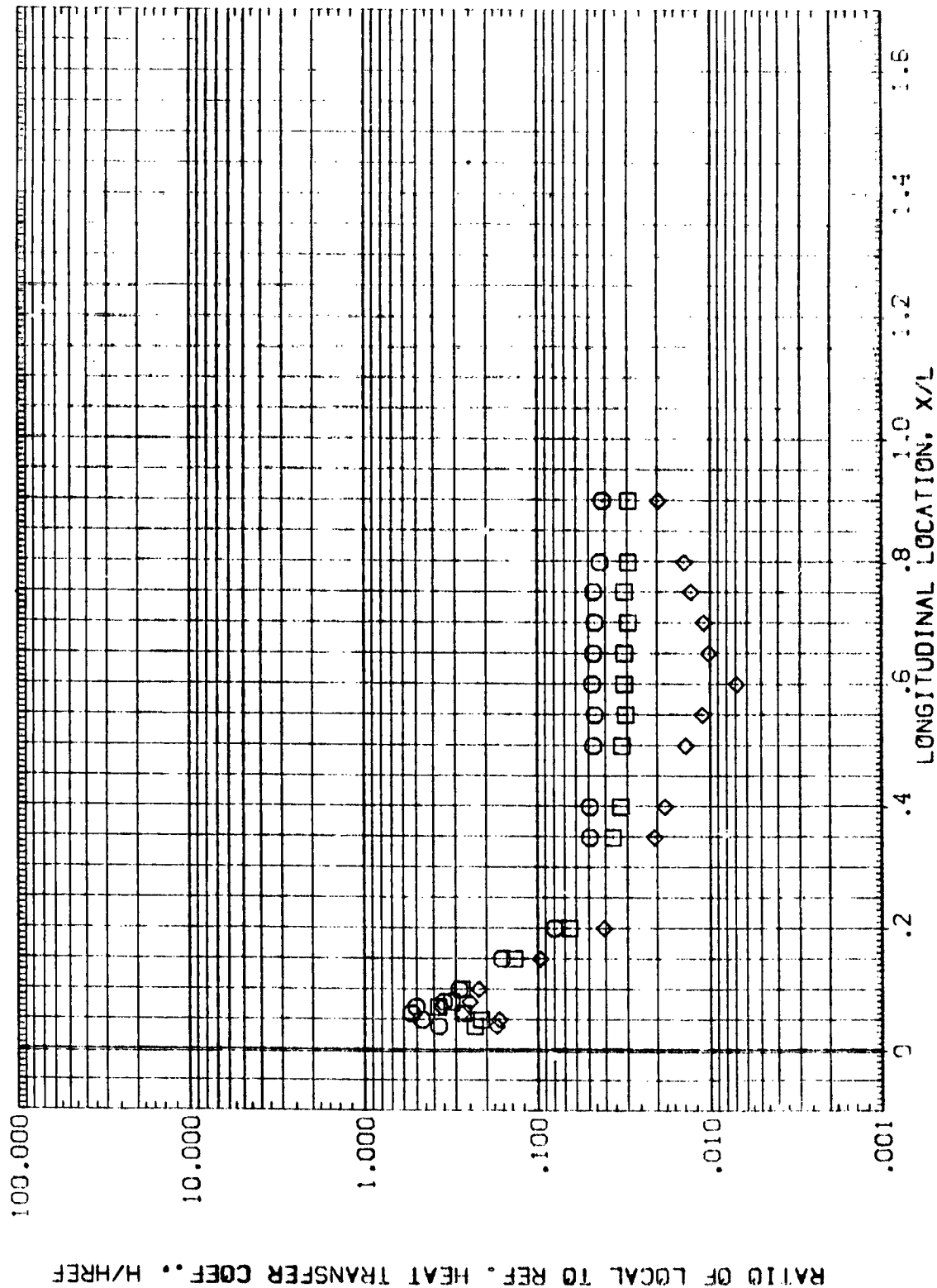


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 135.000



DATA SET SYMBOL  
(RNGF25)  
(RNGF27)  
(RNGF26)

CONFIGURATION DESCRIPTION  
ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK  
DATA NOT AVAILABLE  
ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA  
.000  
5.000  
10.000

BETA  
.000  
.000  
.000

RN/L  
5.000  
5.000  
5.000

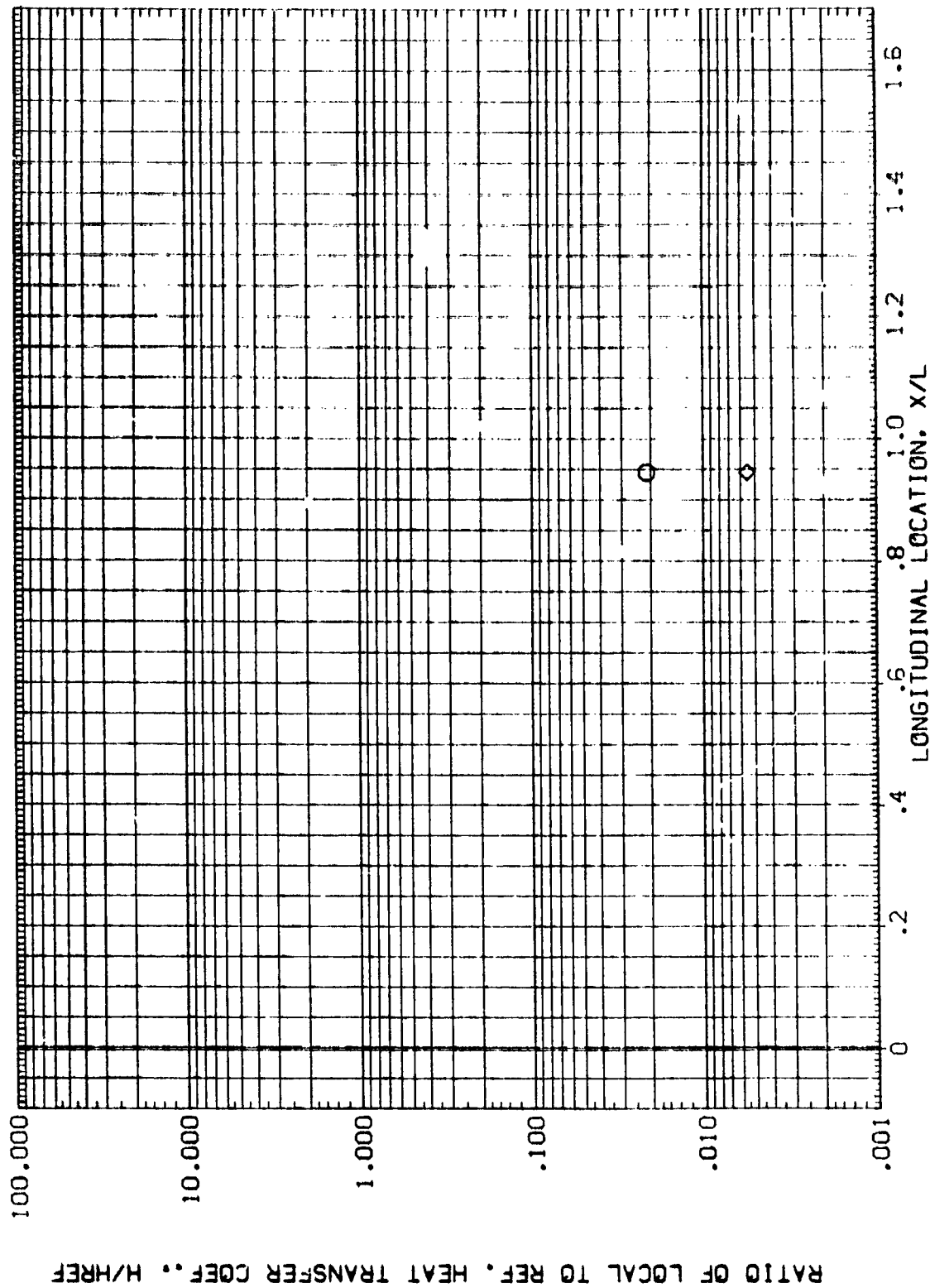


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB25)      ARC3-S-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK      .003      .000      5.000

(RNB27)      DATA NOT AVAILABLE      5.000      .000      5.000

(RNB26)      ARC3-S-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK      10.000      .000      5.000

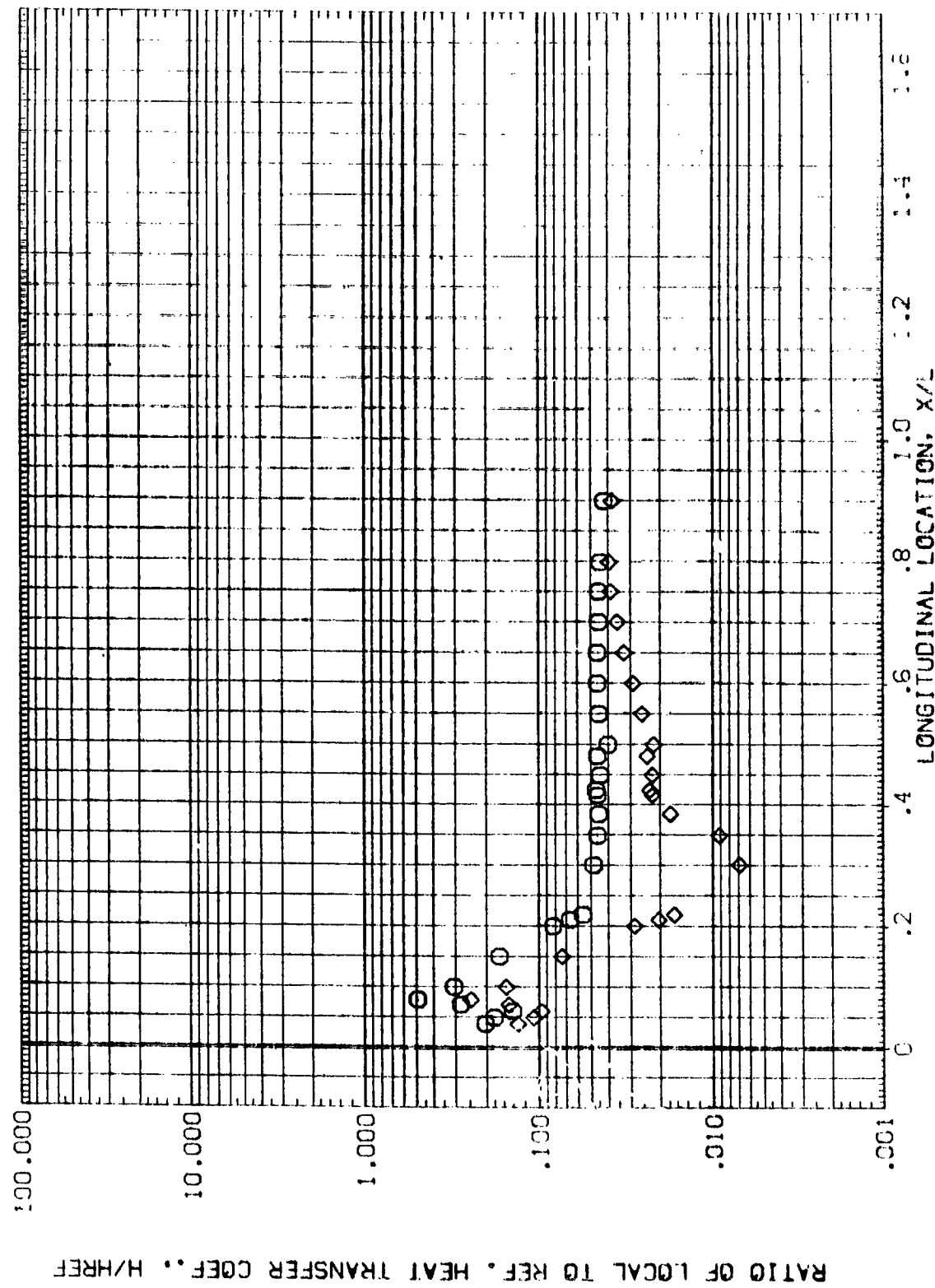


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300    HAW/HT = .900    PHI = 180.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB25) ARC3.5-211(IH48JET /OSIVE /CLEAN /TRIP EXT TANK  
 (RNB27) DATA NOT AVAILABLE  
 (RNB26) ARC3.5-211(IH48JET /OSIVE /CLEAN /TRIP EXT TANK

ALPHA BETA REL L  
 .000 .000 5.000  
 5.000 .000 5.000  
 10.000 .000 5.000

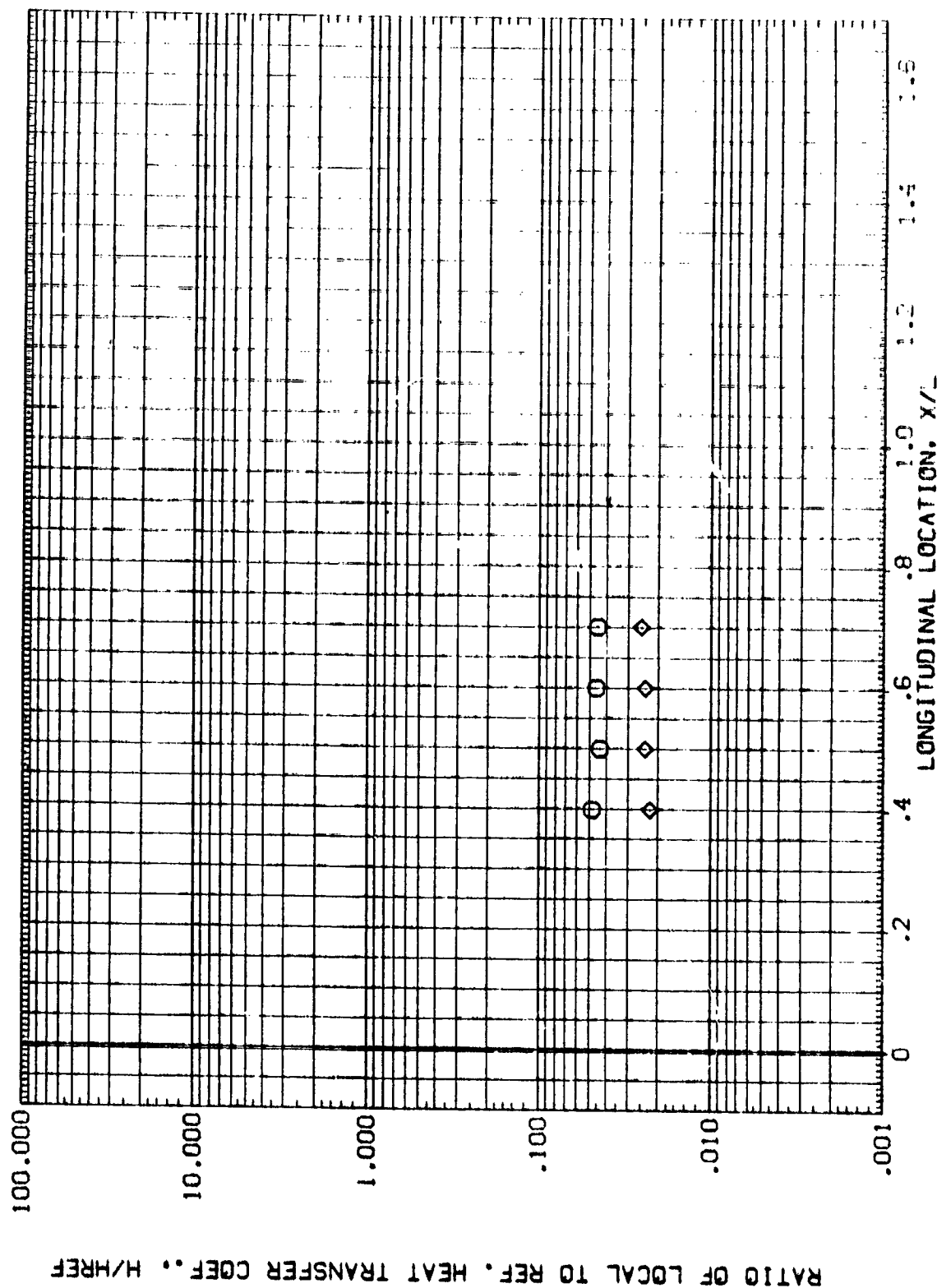


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300 HAW/HT = .900 PH = 191.250

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA       $\beta/\alpha$

(RNF25)      ARC3.5-211C(148)ET /OGIVE /CLEAN /TRIP EXT TANK      .000      .000      5.000

(RNF27)      DATA NOT AVAILABLE      .000      .000      5.000

(RNF26)      ARC3.5-211C(148)ET /OGIVE /CLEAN /TRIP EXT TANK      10.000      .000      5.000

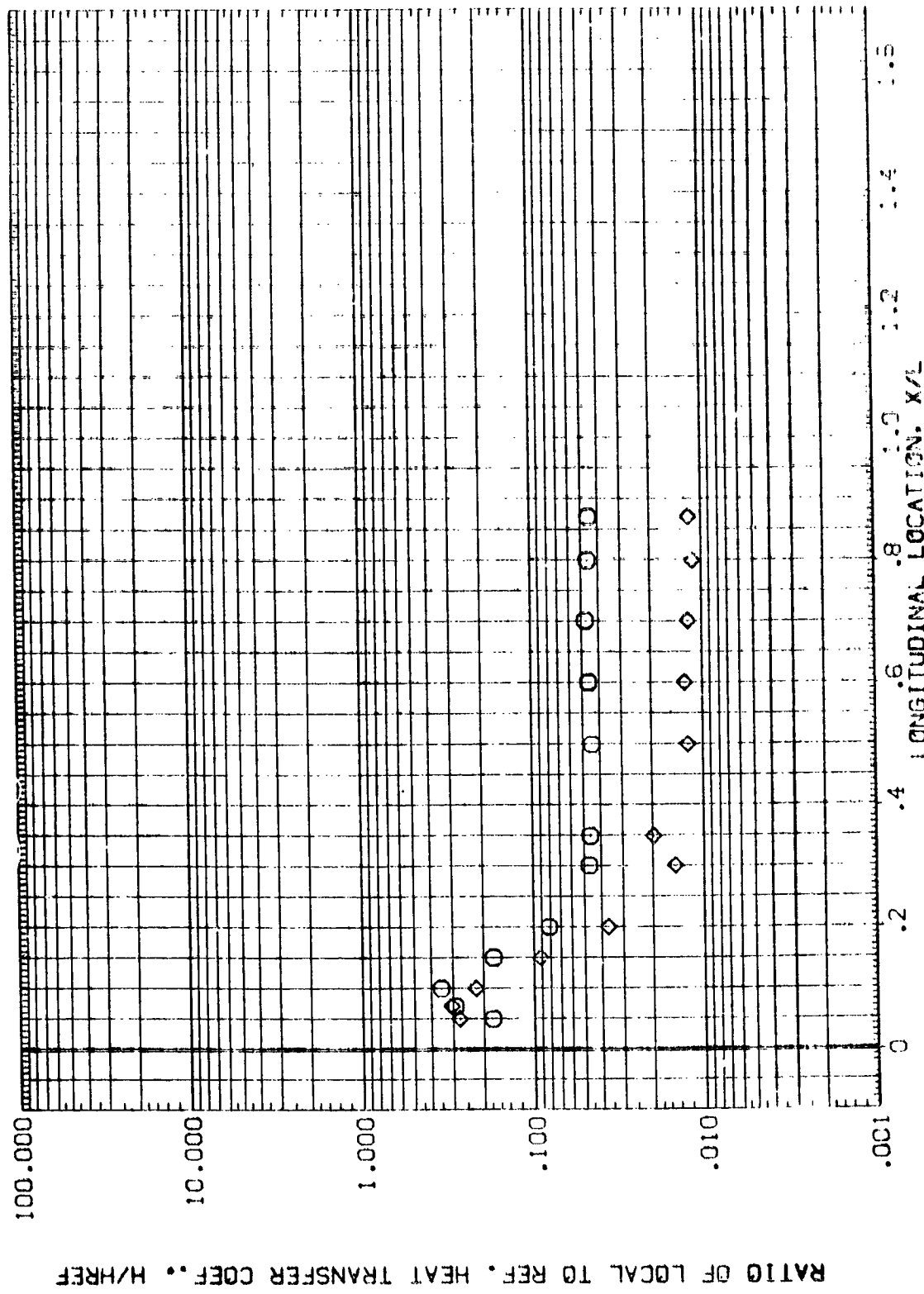


FIG. 07 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = 0.0

MACH = 5.300      HAW/HT = .900      PHI = 217.700      PAGE 318

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RM/L
(RABF09)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.0000
(RABF08)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.0000
(RABF10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.0000

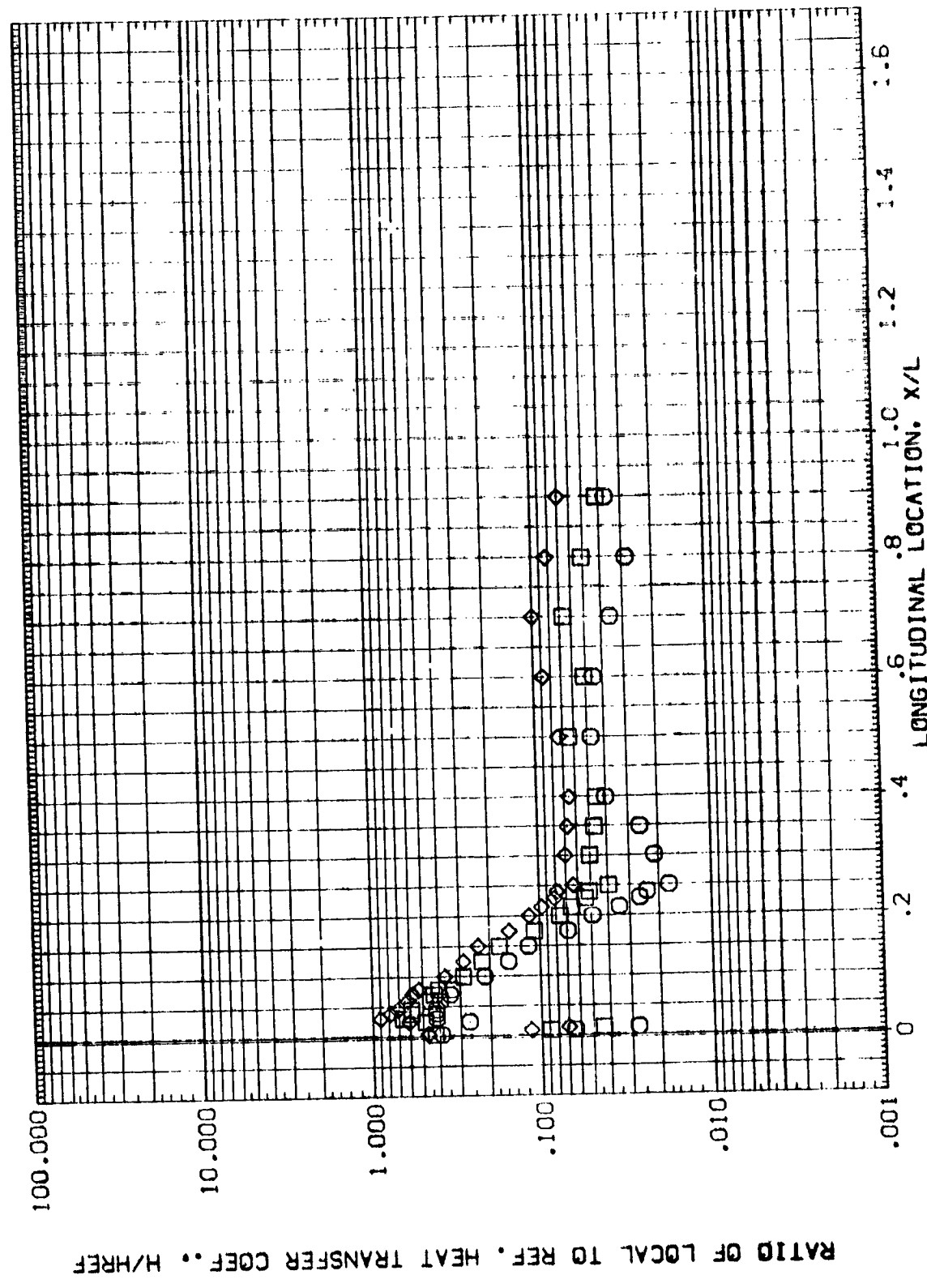


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNB09)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNB08)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNB10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

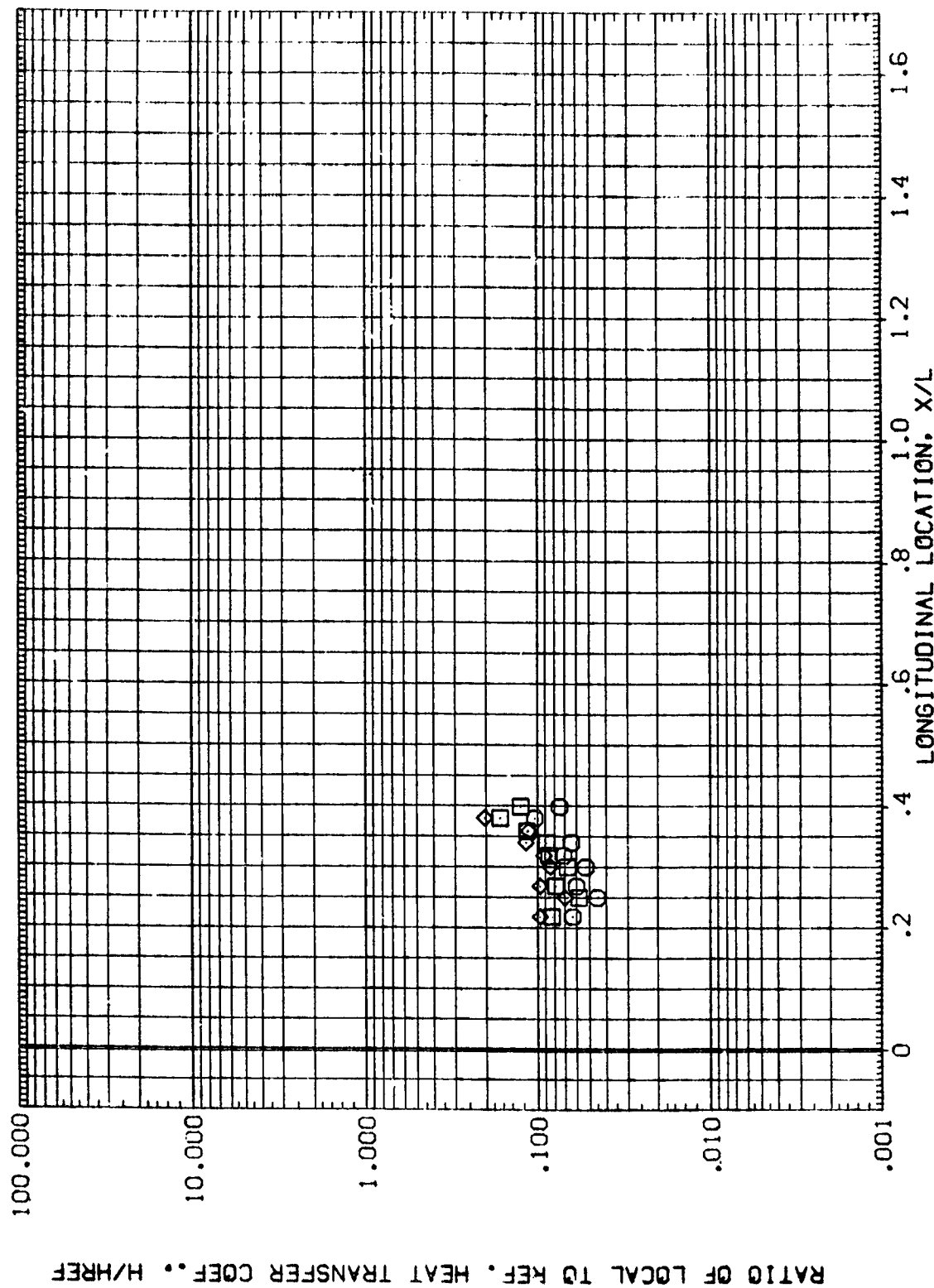
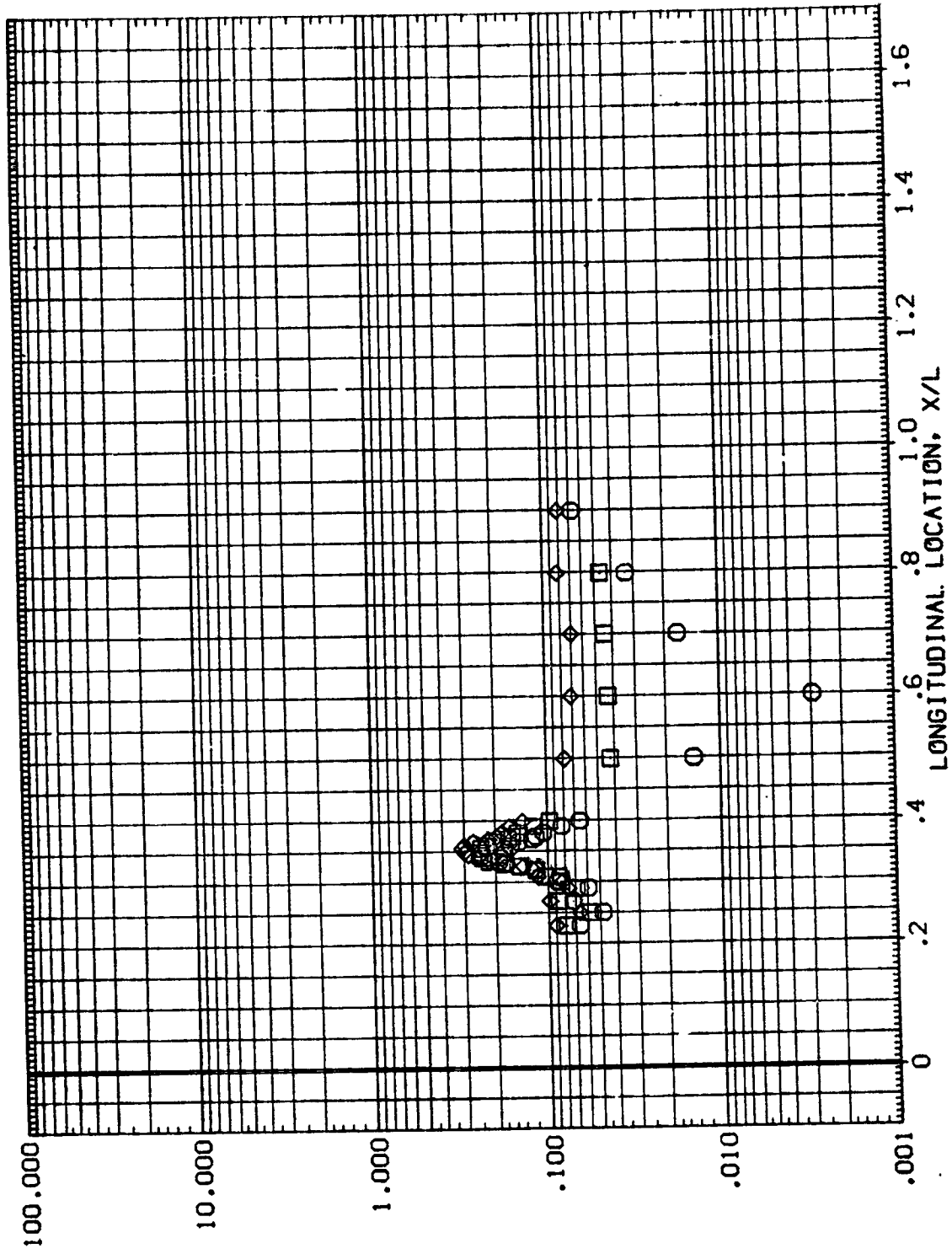


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFO9)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNBFO10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000



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FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 67.500

ALPHA BETA RN/L  
-5.000 -5.000 5.000  
.000 -5.000 5.000  
5.000 -5.000 5.000

EXT TANK  
EXT TANK  
EXT TANK

CONFIGURATION DESCRIPTION  
ARC3.5-211((1H48)OTS/NIPPLE/P/TRIP  
ARC3.5-211((1H48)OTS/NIPPLE/P/TRIP  
ARC3.5-211((1H48)OTS/NIPPLE/P/TRIP

DATA SET SYMBOL  
(RNBFO9)  
(RNBFO8)  
(RNBFO10)

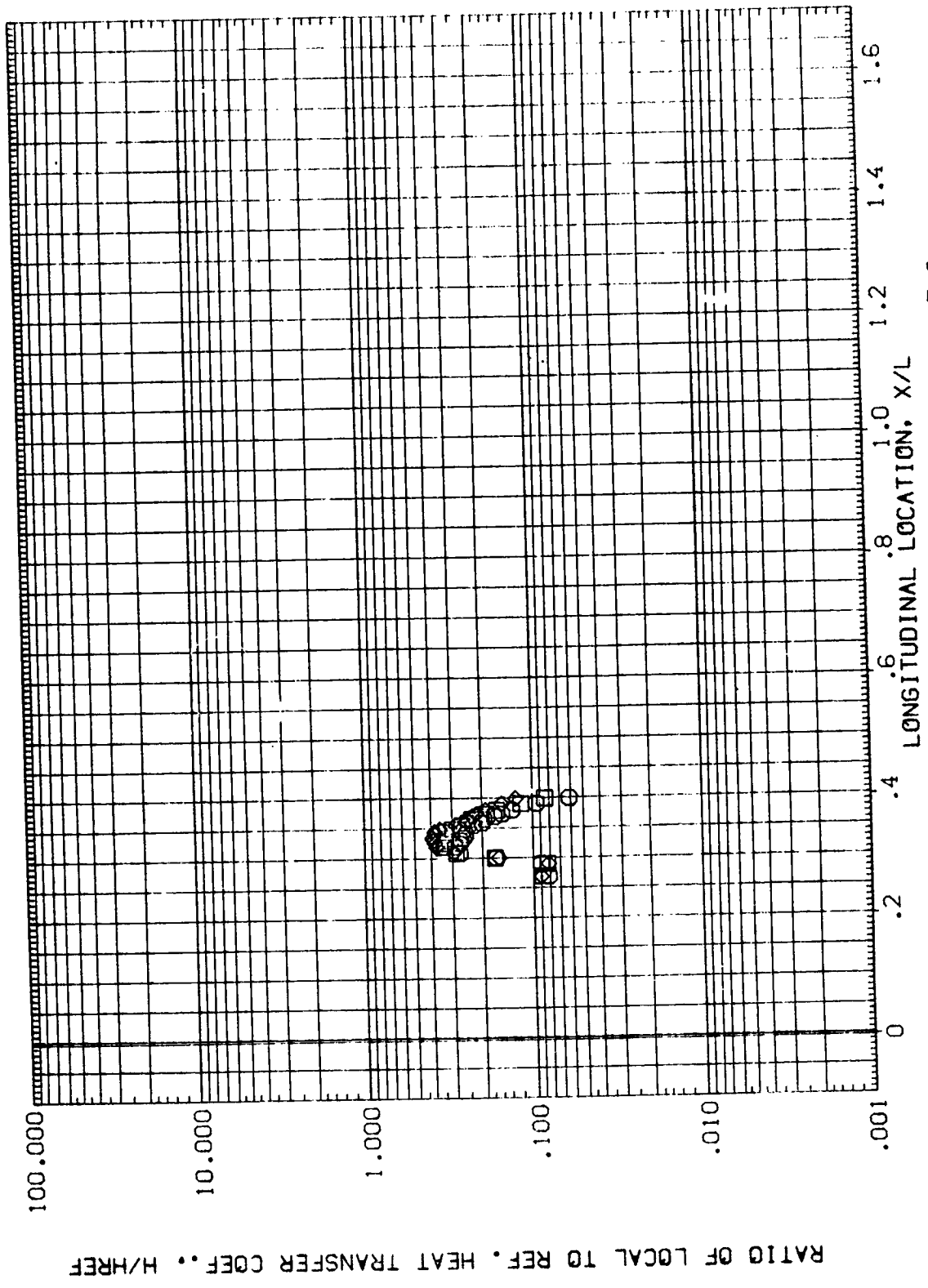


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 78.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNB09)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNB08)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNB10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

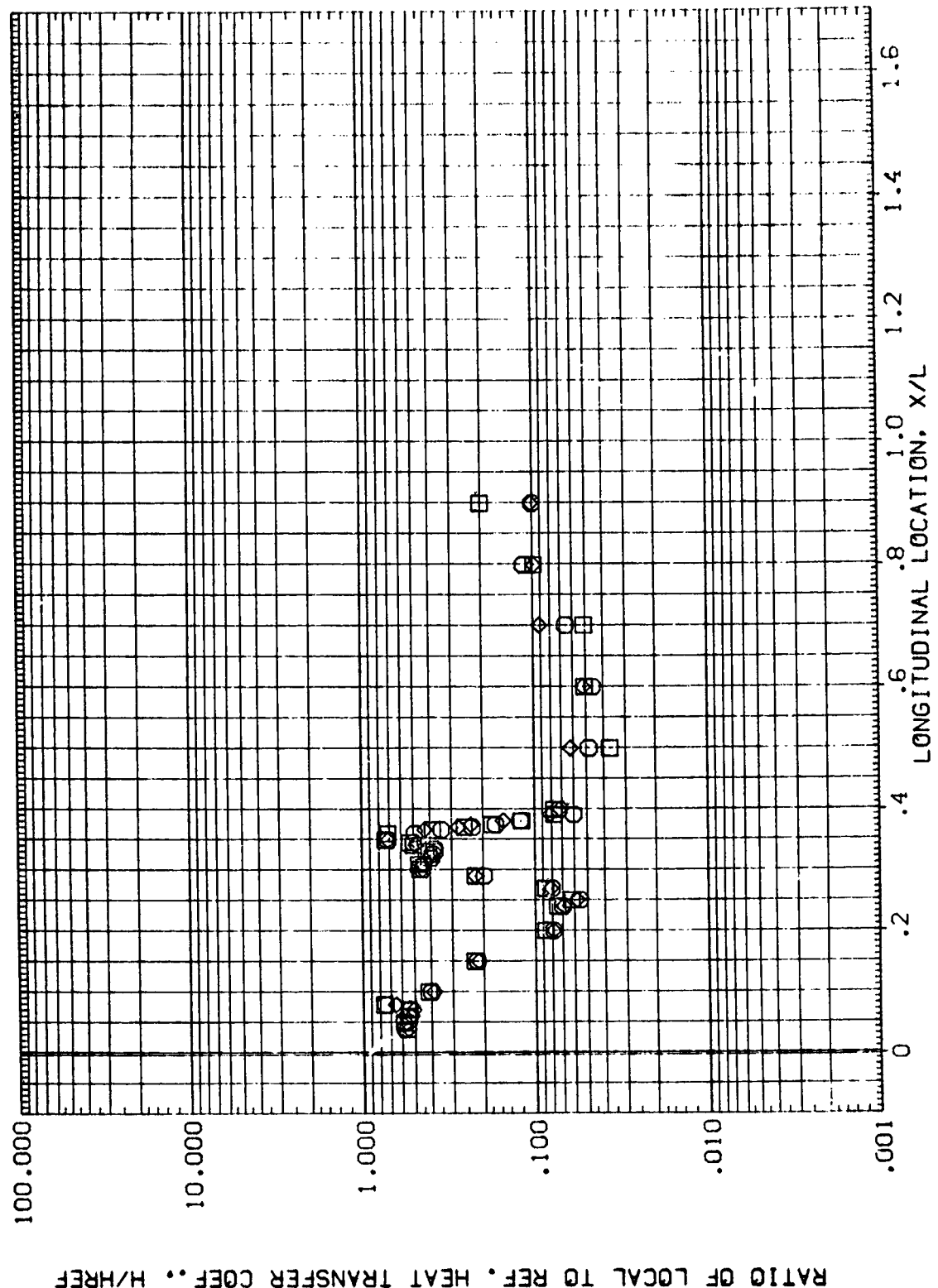


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      EXT TANK      ALPHA      BETA      RM/L

(RNB09)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      -5.000      -5.000      5.000

(RNB08)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      .000      -5.000      5.000

(RNB10)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      5.000      -5.000      5.000

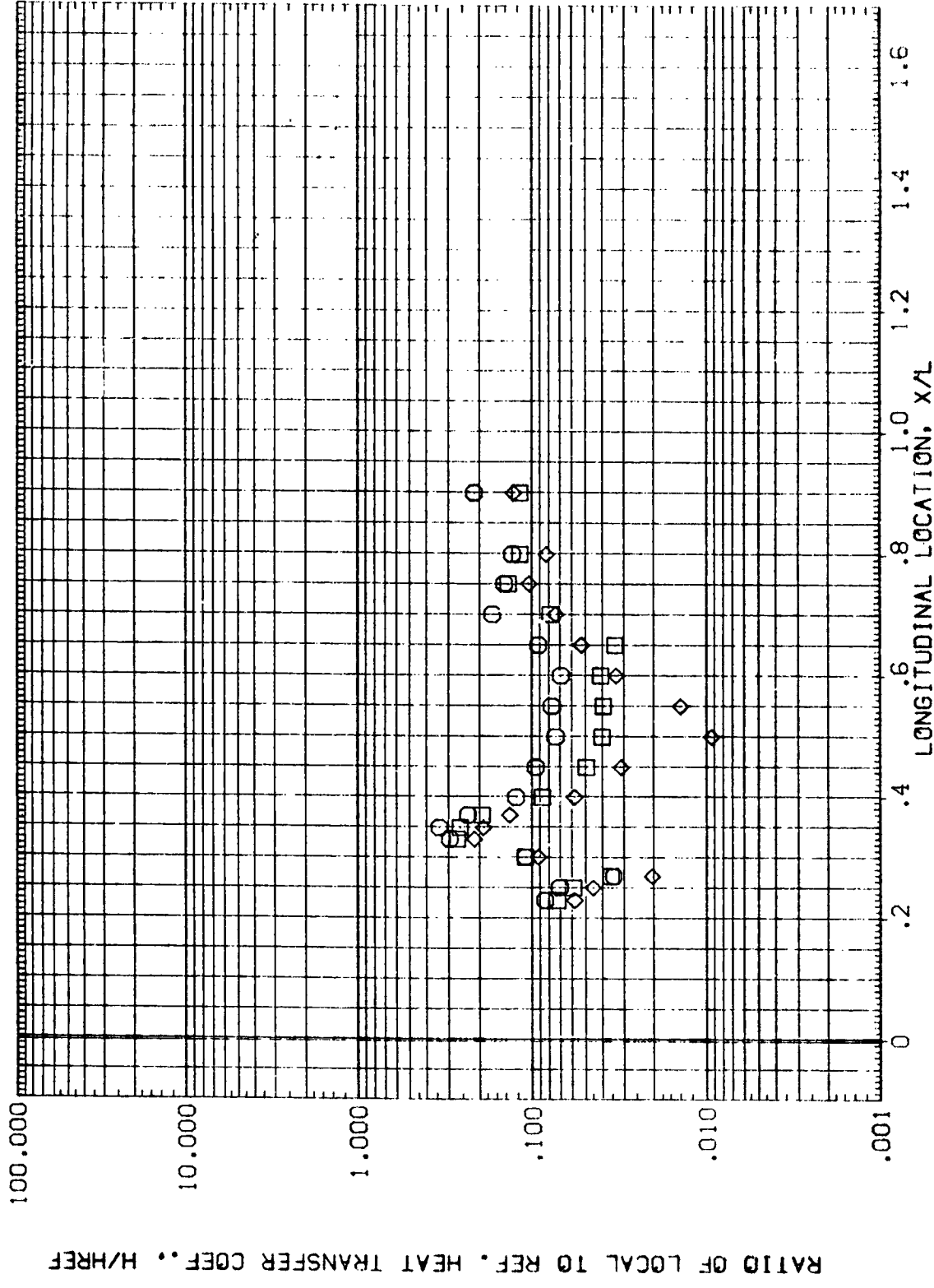


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300    HAW/HT = .900    PHI = 112.500    PAGE 324

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNF09)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
 (RNF08)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
 (RNF10)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

EXT TANK      ALPHA      BETA      RN/L  
 EXT TANK      -5.000      -5.000      5.000  
 EXT TANK      5.000      -5.000      5.000

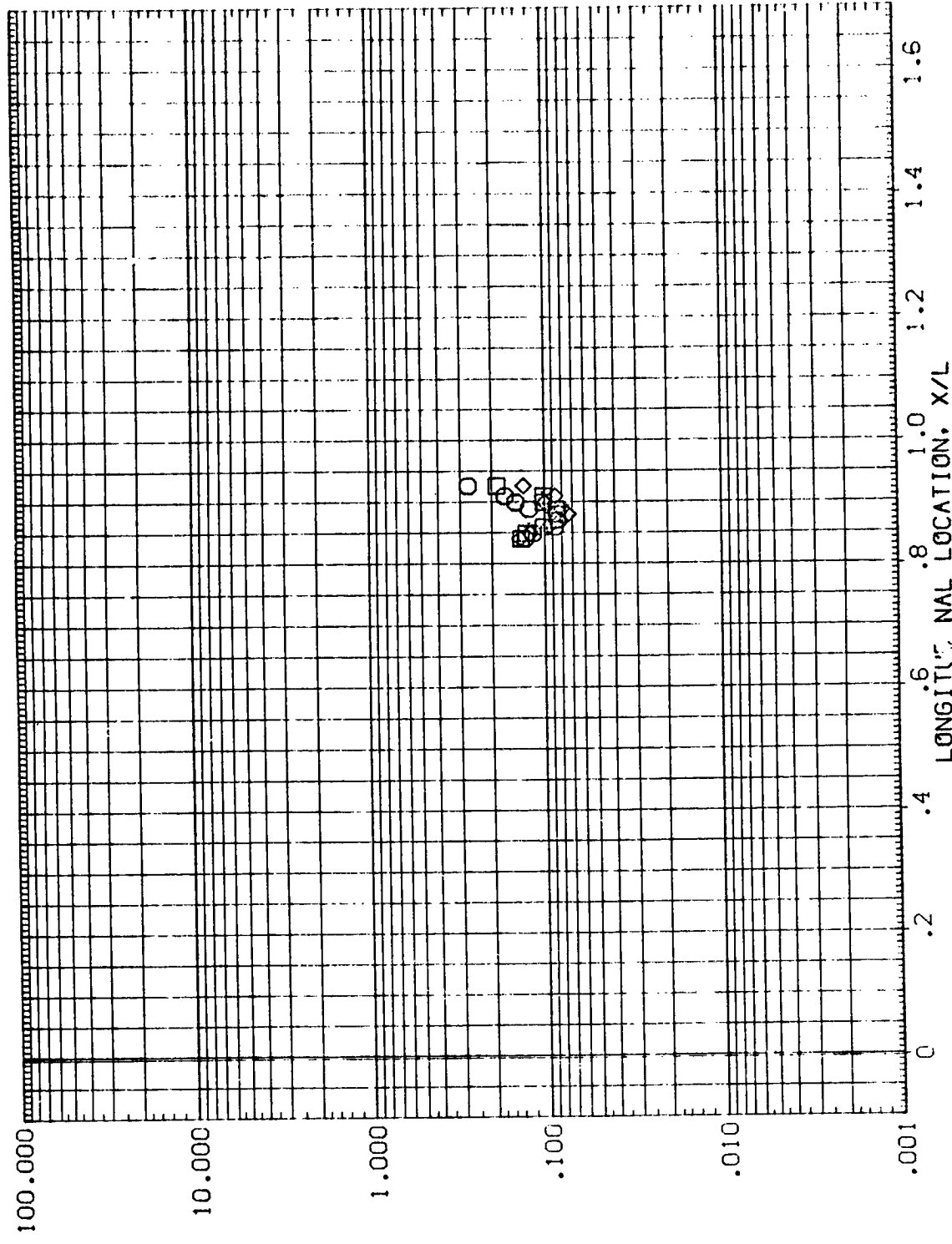


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300      HAW/HT = .900      PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO9) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
 (RNBFO8) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
 (RNBFO10) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

EXT TANK  
 EXT TANK  
 EXT TANK

ALPHA BETA RN/L  
 -5.000 -5.000 5.000  
 .000 -5.000 5.000  
 5.000 -5.000 5.000

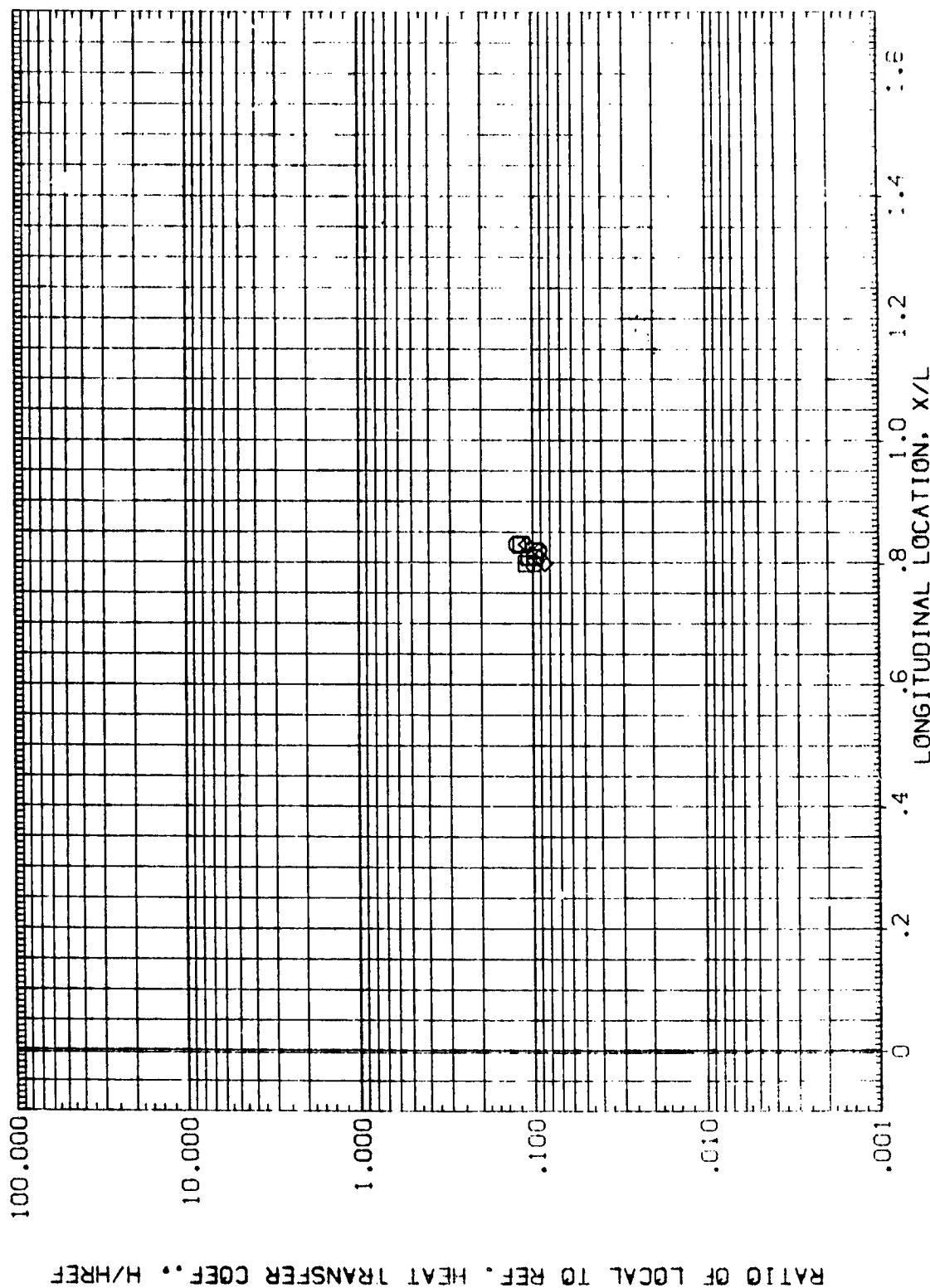


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFO9)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNBFO10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

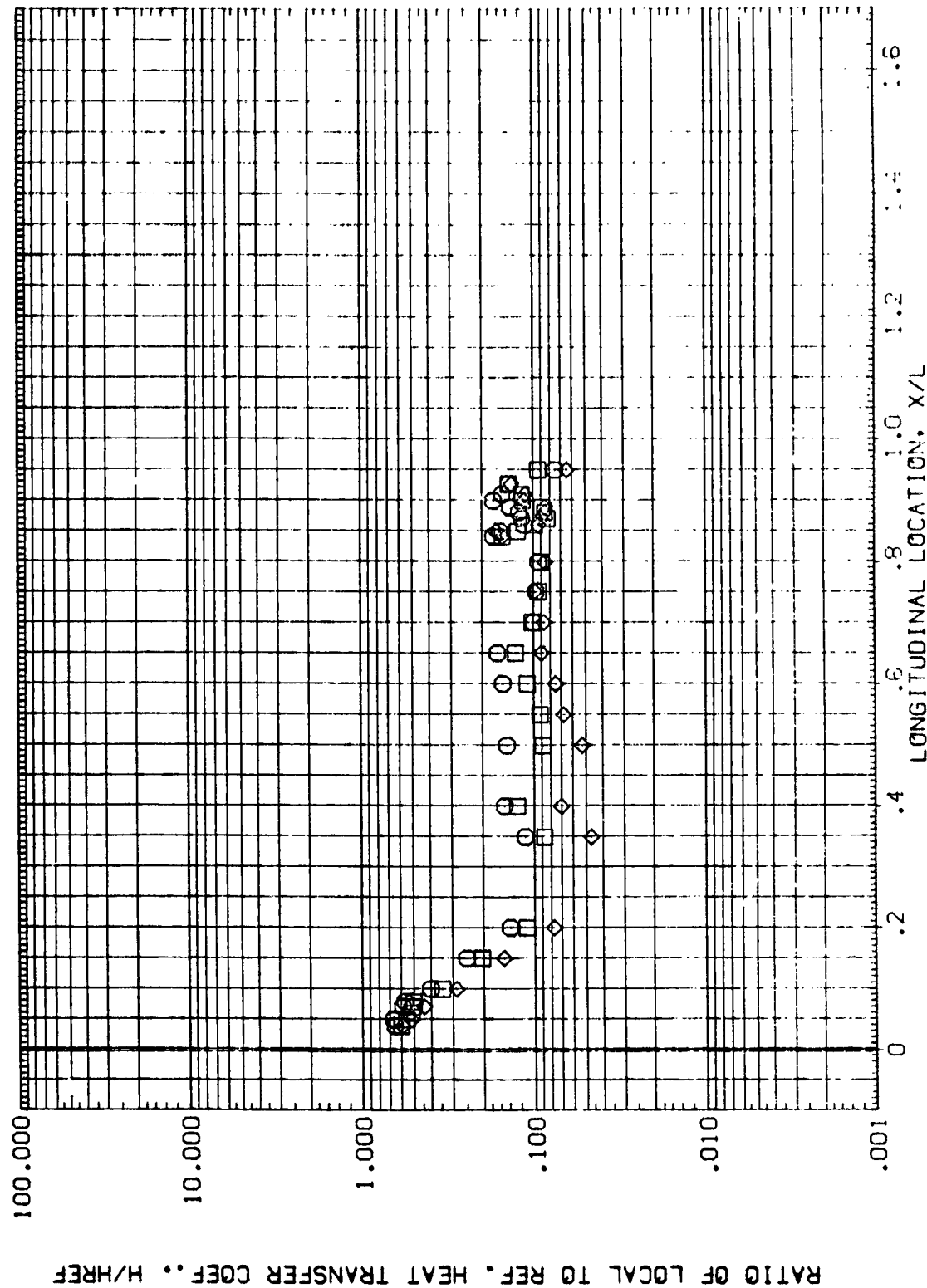


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HI = .000 PHI = 135.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFO9)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNBFO10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

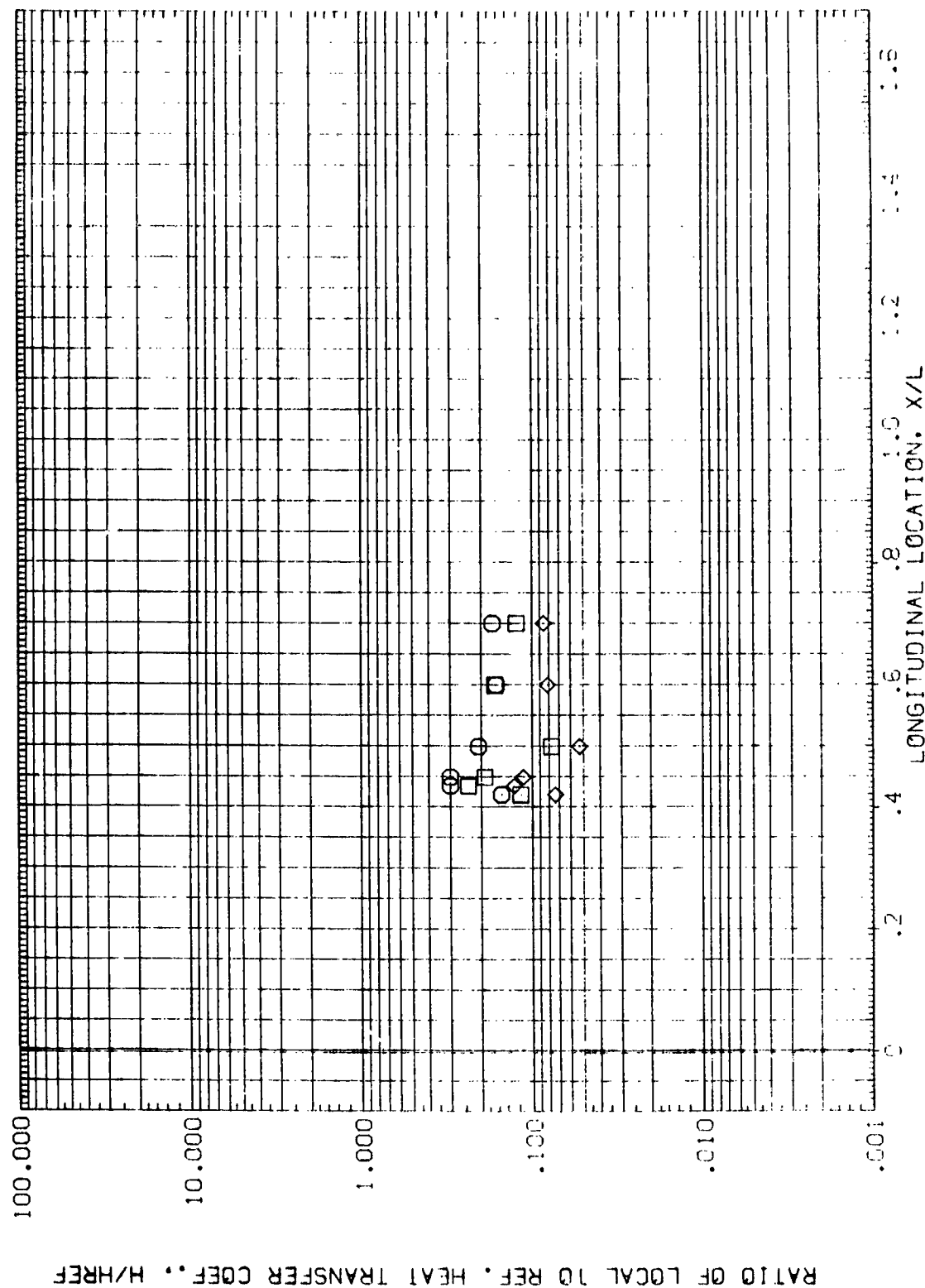


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAWKITE = .900 PHI = 142.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFO9)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNBFO10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

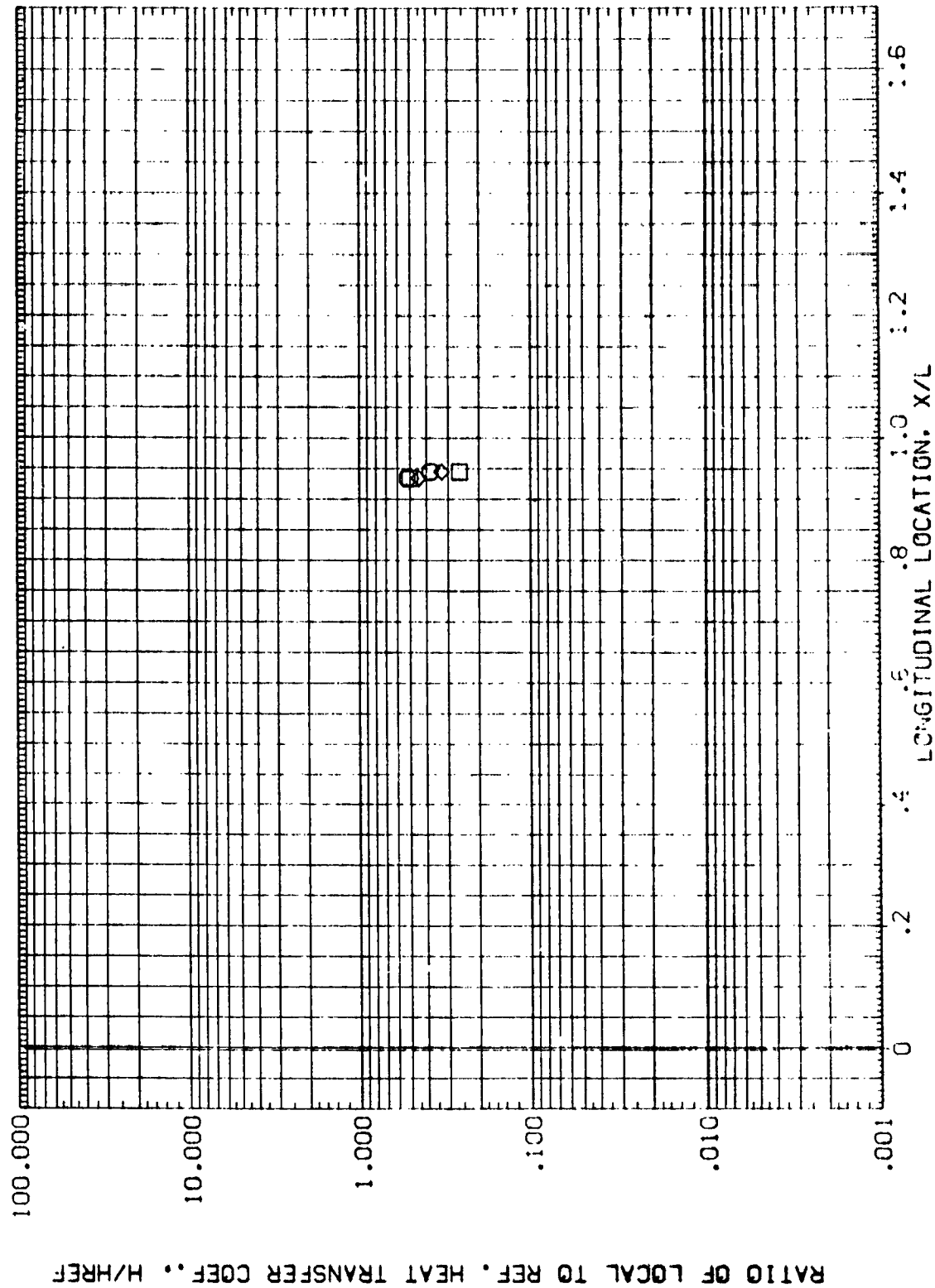


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNB08)  
(RNB08)  
(RNB10)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

EXT TANK  
EXT TANK  
EXT TANK

ALPHA BETA RN/L  
-5.000 -5.000 5.000  
.000 -5.000 5.000  
5.000 -5.000 5.000

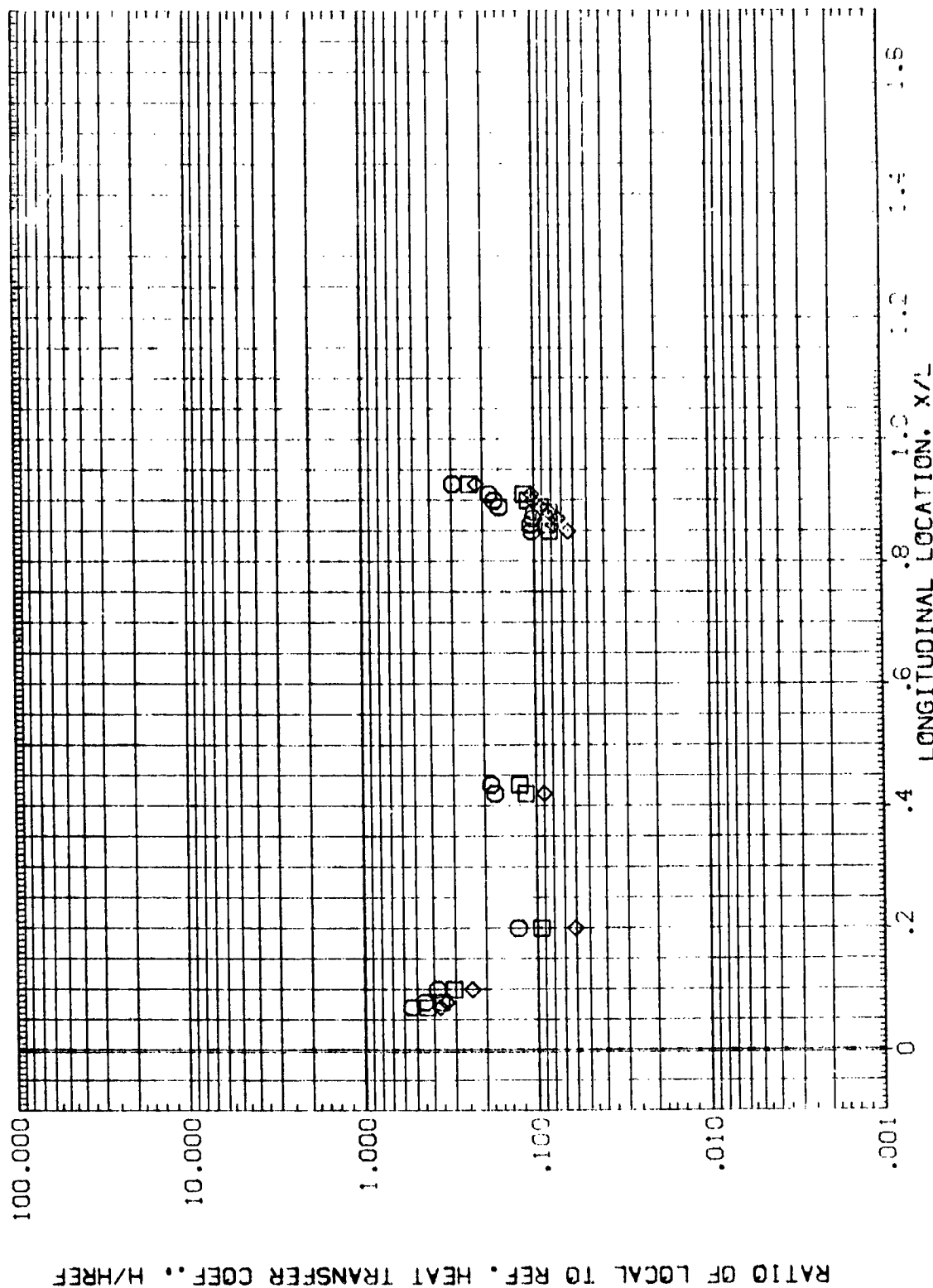


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 157.500



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	EXT TANK	ALPHA	BETA	RM/L
(RMBF09)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	EXT TANK	-5.000	-5.000	5.000
(RMBF08)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	EXT TANK	.000	-5.000	5.000
(RMBF10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	EXT TANK	5.000	-5.000	5.000

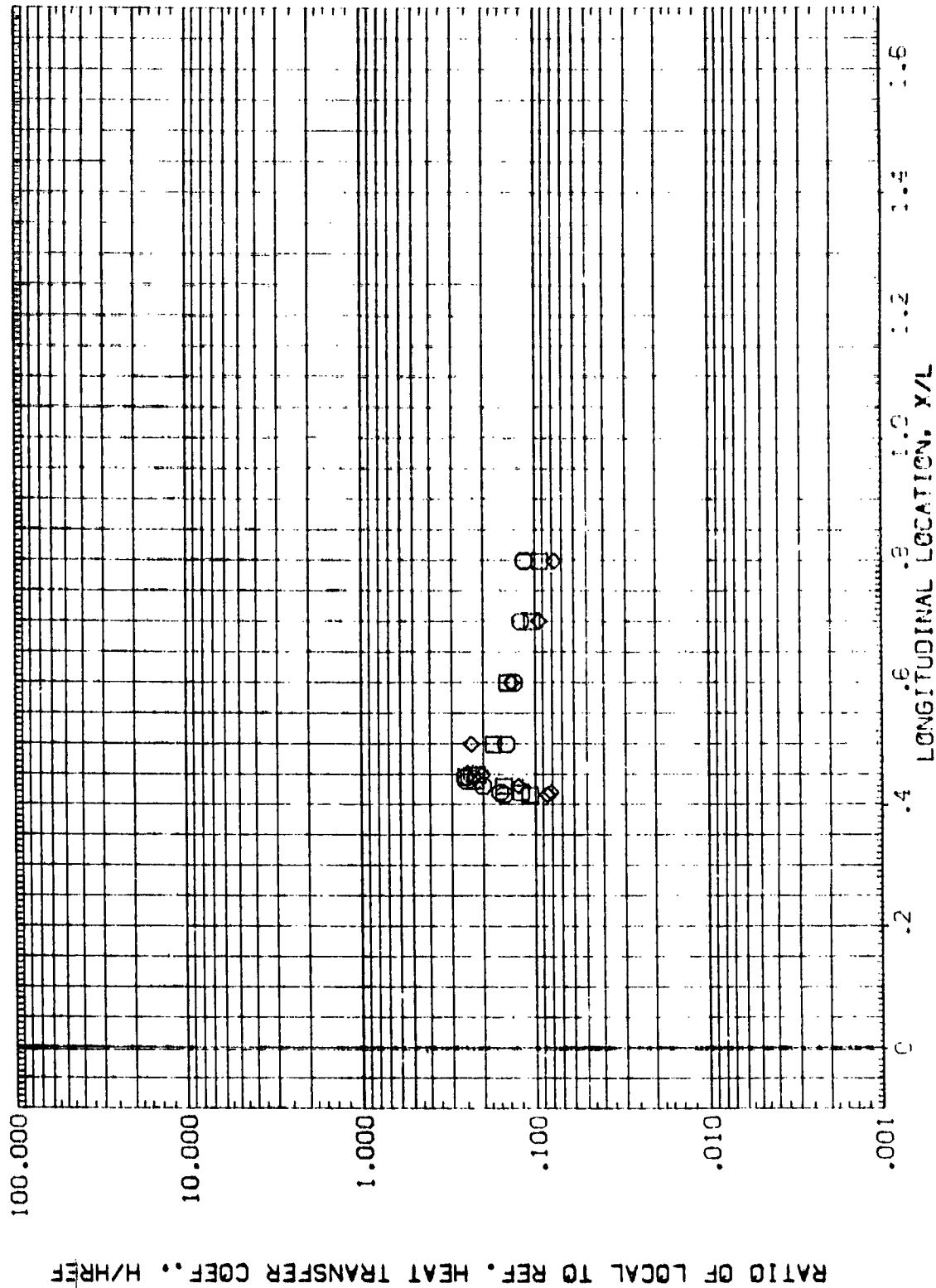


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R4BF09) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
 (R4BF08) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP  
 (R4BF10) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

EXT TANK EXT TANK  
 EXT TANK EXT TANK  
 EXT TANK EXT TANK

ALPHA BETA X/L  
 -5.000 -5.000 5.000  
 -5.000 -5.000 5.000  
 -5.000 -5.000 5.000

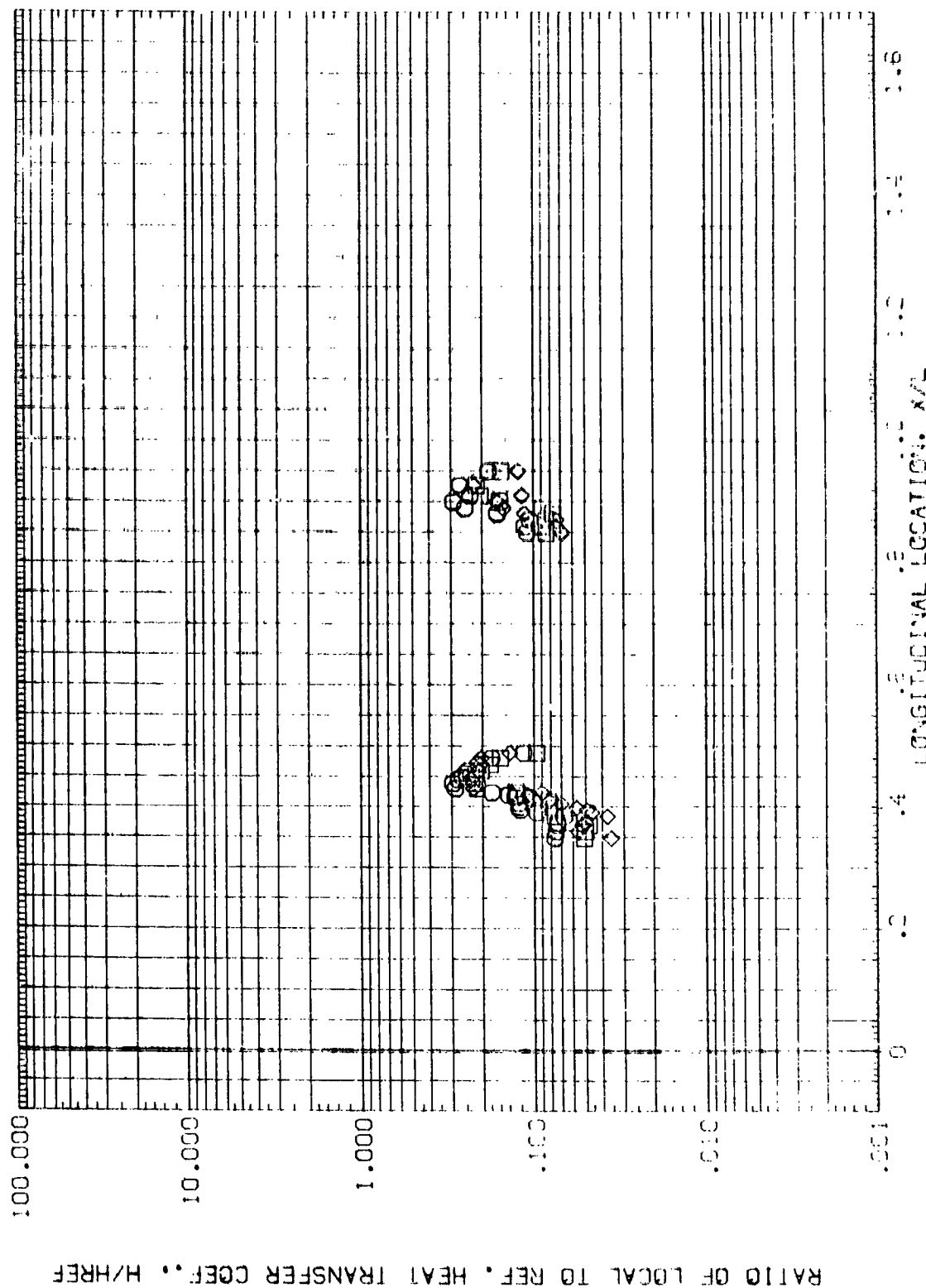


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 H/W/HREF = 0.001 H/HREF = 168.000

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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	B/L
(R3F04)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(R3F08)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(R3F10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

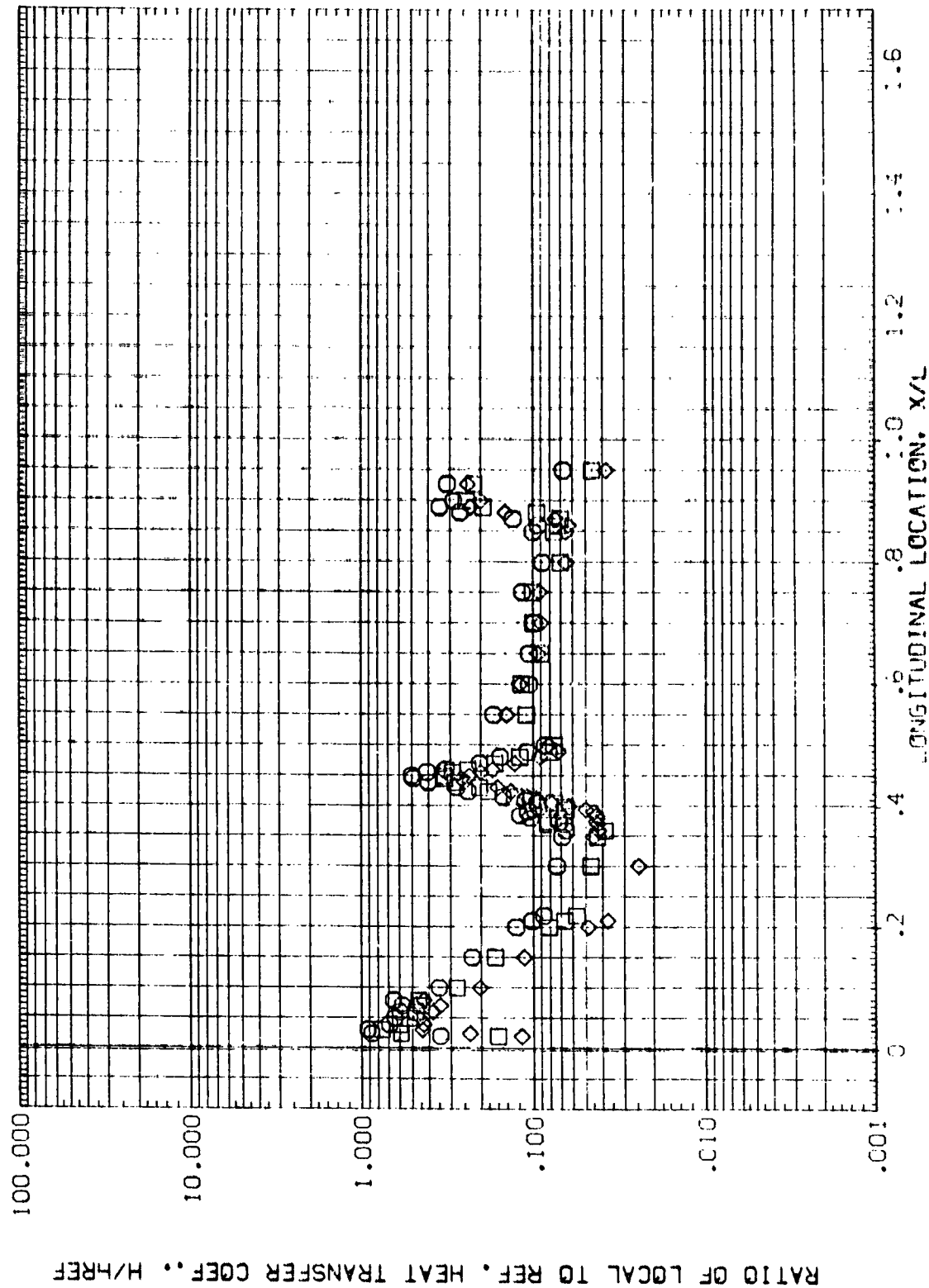


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RM/L
(RNBFO9)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNBFO10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

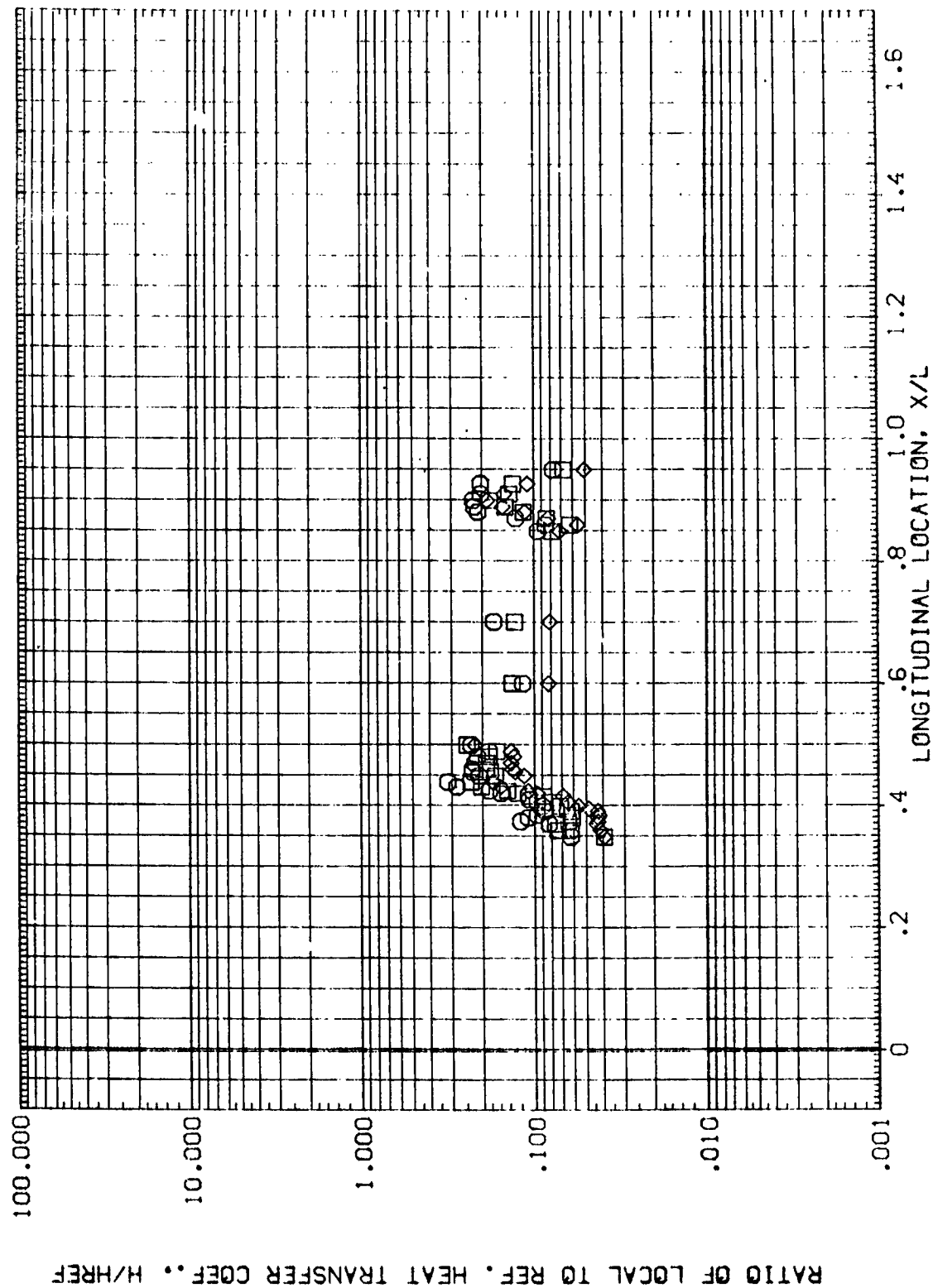


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFO9)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNBFO10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

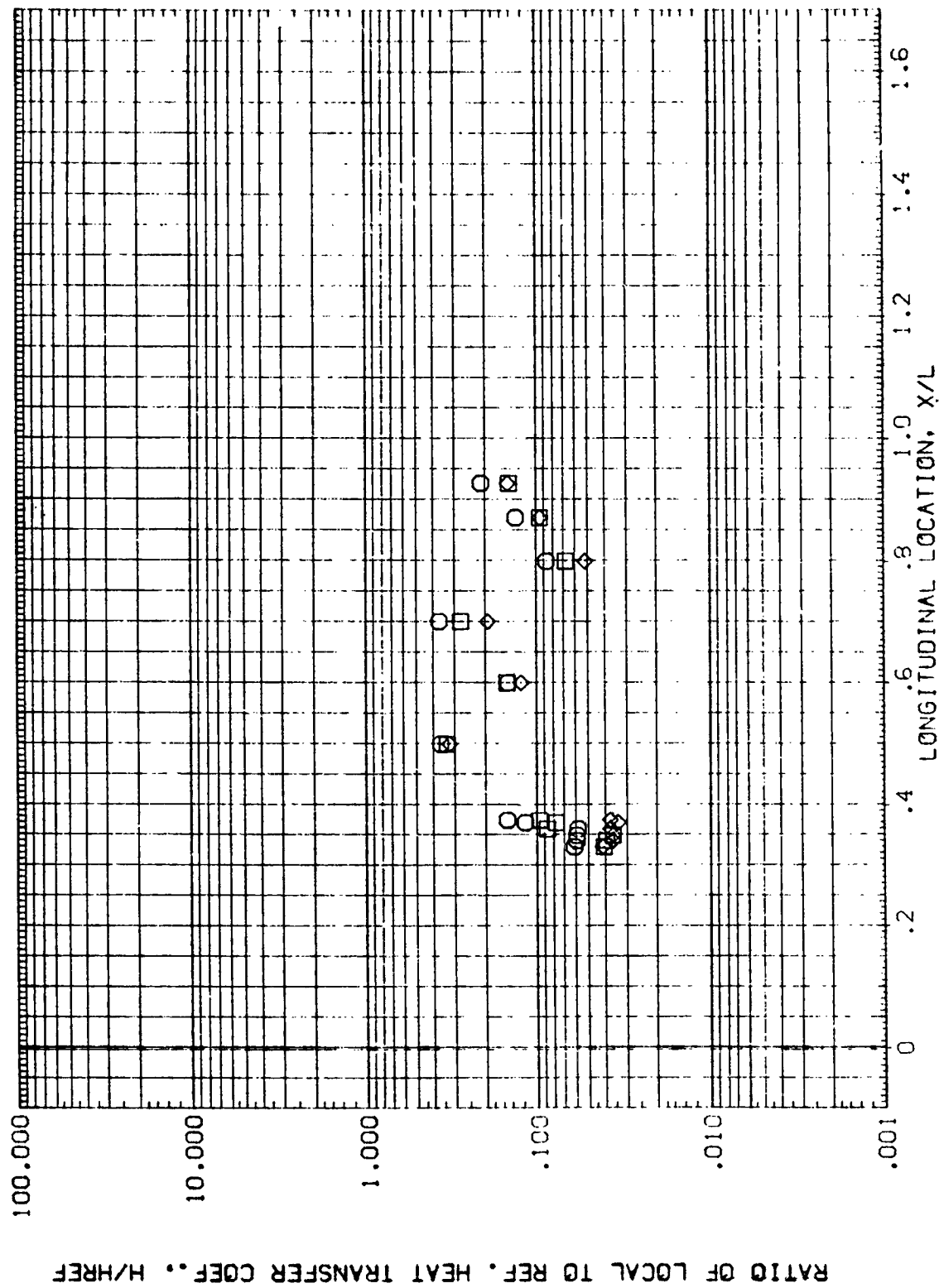


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFO9)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	.000	-5.000	5.000
(RNBFO10)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

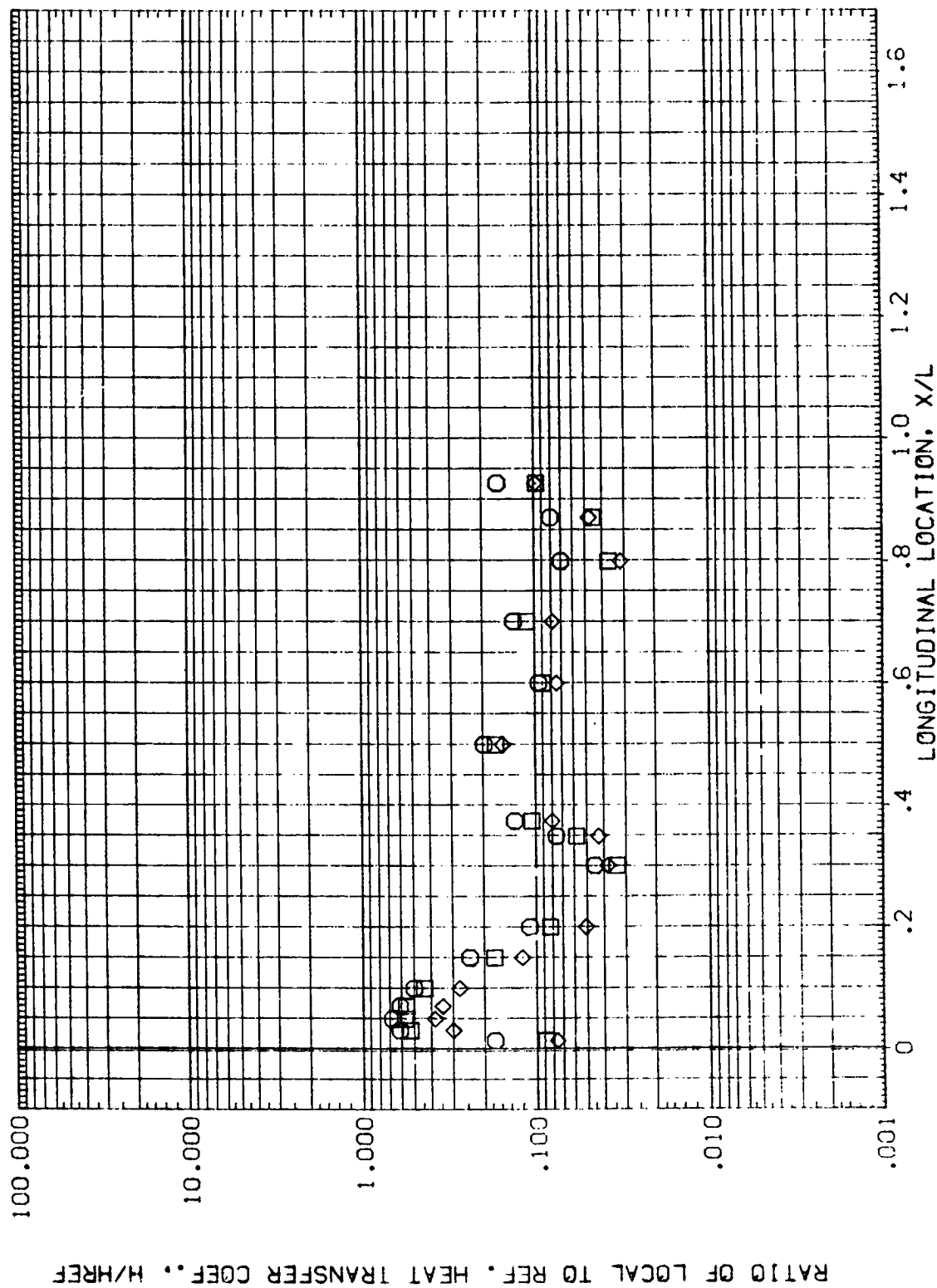


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 P-HI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO9)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

(RNBFO8)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

(RNBFI0)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      5.000      -5.000      5.000

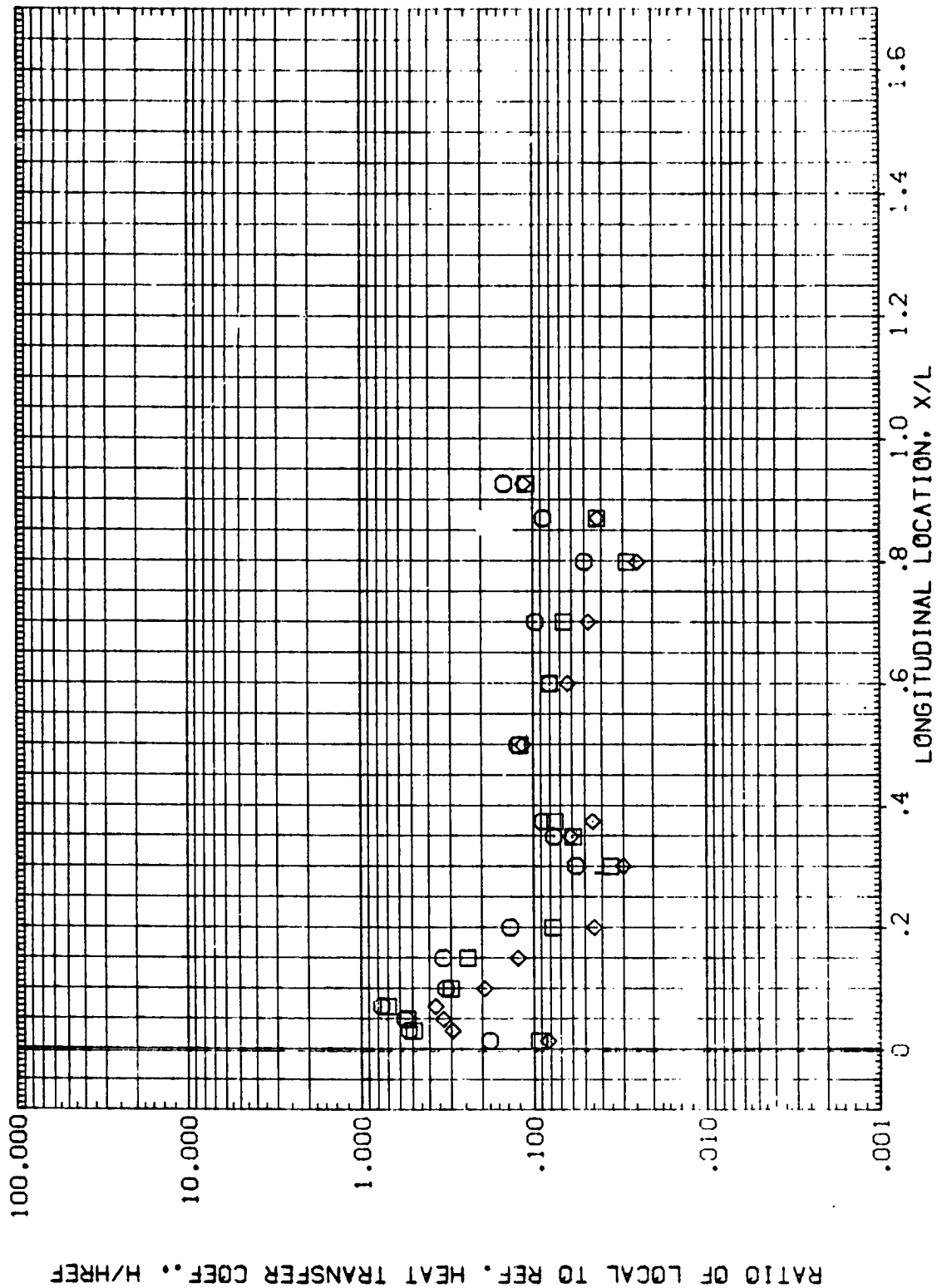


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.350      HAW/HT = .900      PHI = 217.700

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI1) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

ALPHA BETA QN/L  
 -5.000 -5.000 5.000  
 5.000 -5.000 5.000

EXT TANK  
 EXT TANK

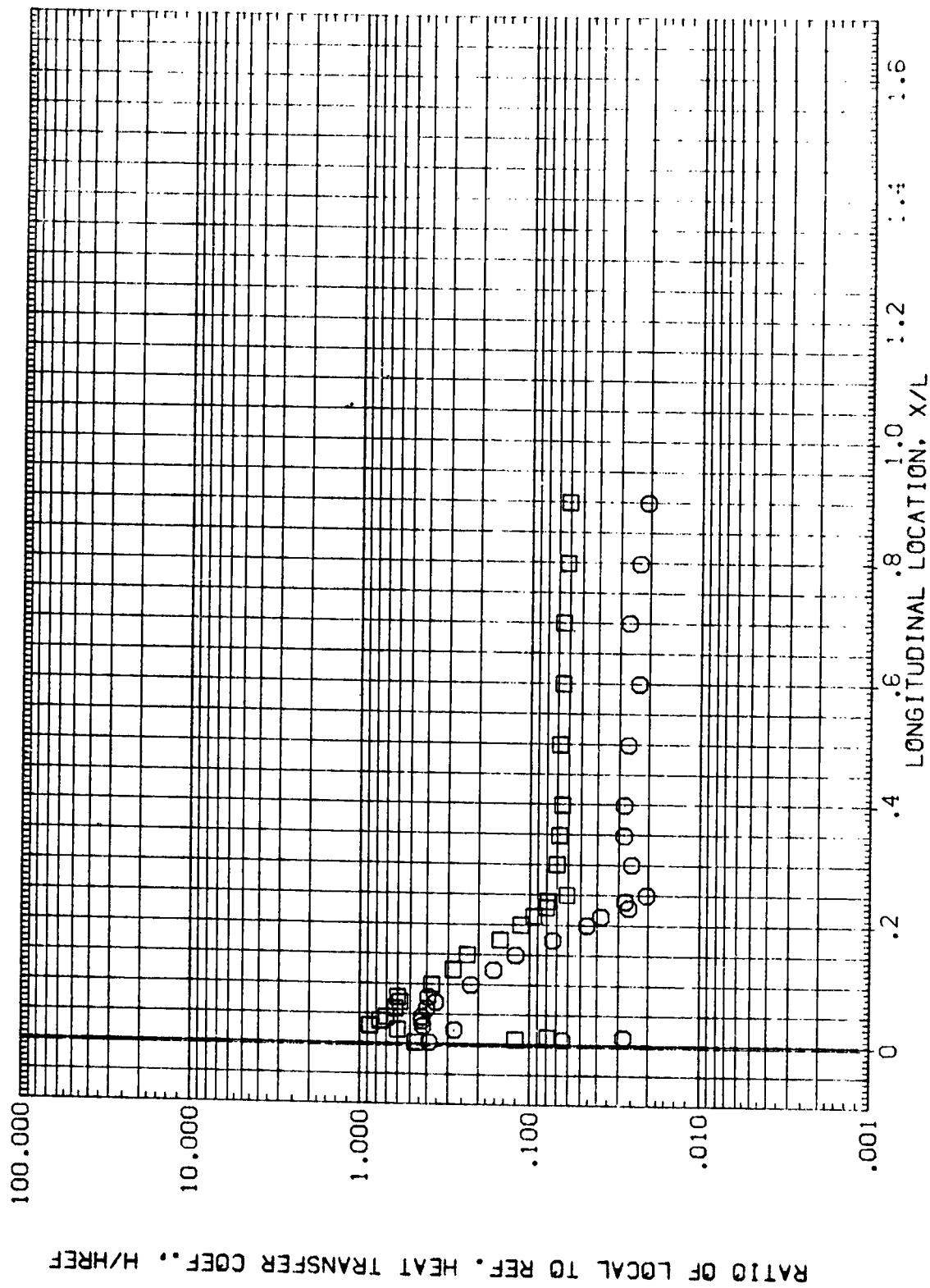


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = .000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB11)      ARC3.5-211(1H48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000  
 (RNB12)      ARC3.5-211(1H48)OT /NIPPLE/P/TRIP      5.000      -5.000      5.000

8

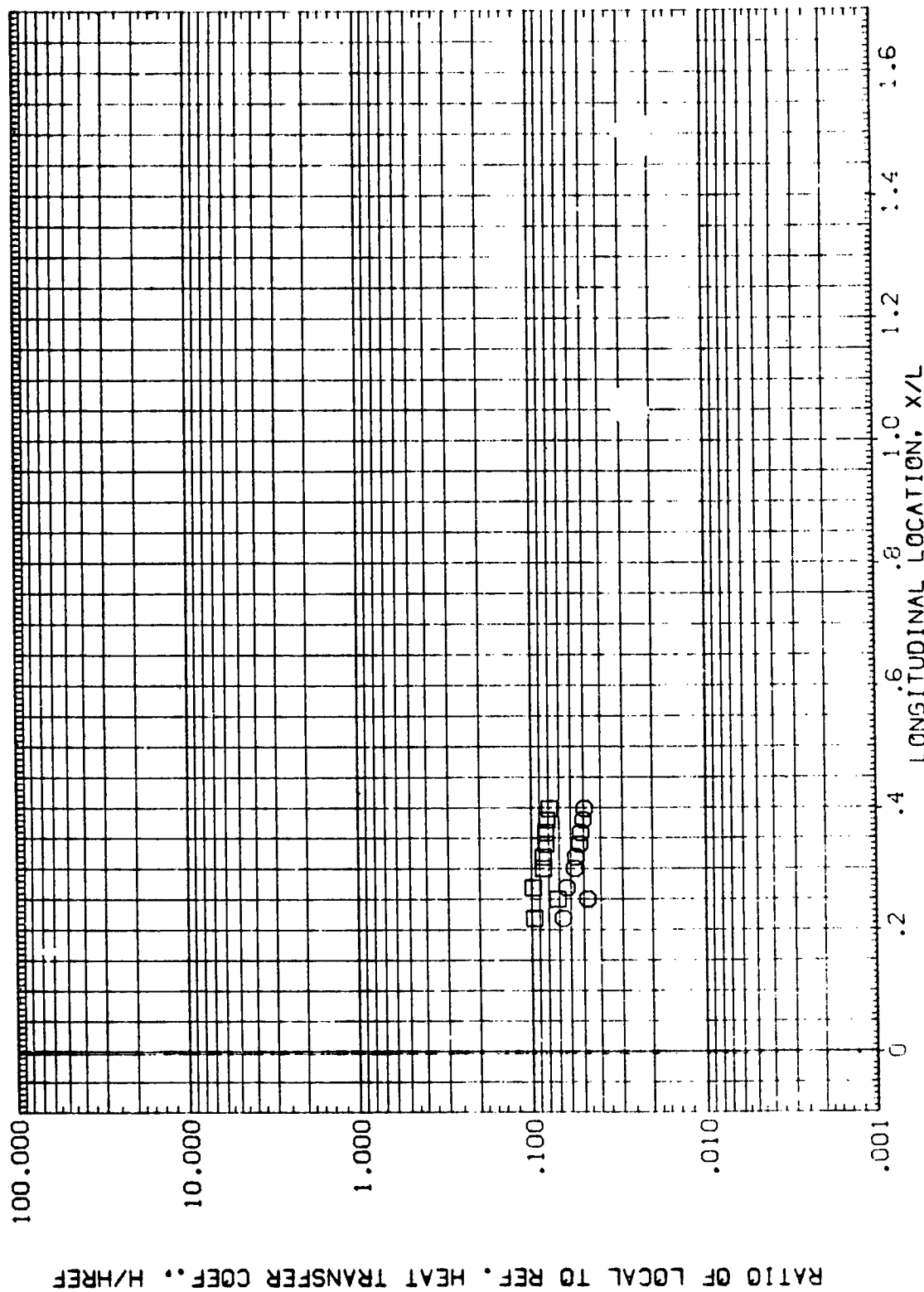


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300      HAW/HT = .300      FHT = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFI1)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000

(RNBFI2)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000

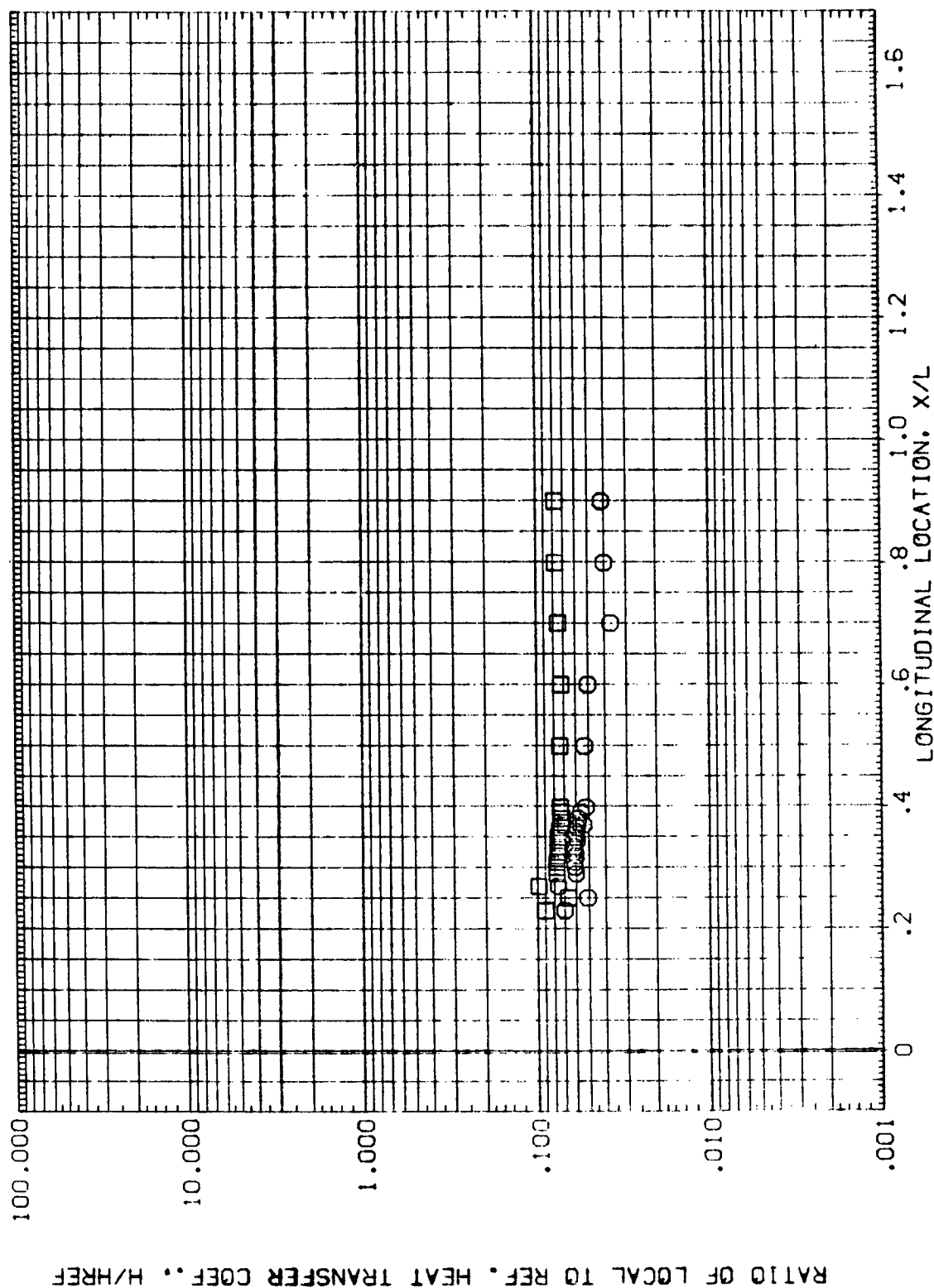


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300      HAW/HT = .300      PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFI1)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK    EXT TANK  
 ALPHA    BETA    RN/L  
 -5.000    -5.000    5.000  
 5.000    -5.000    5.000

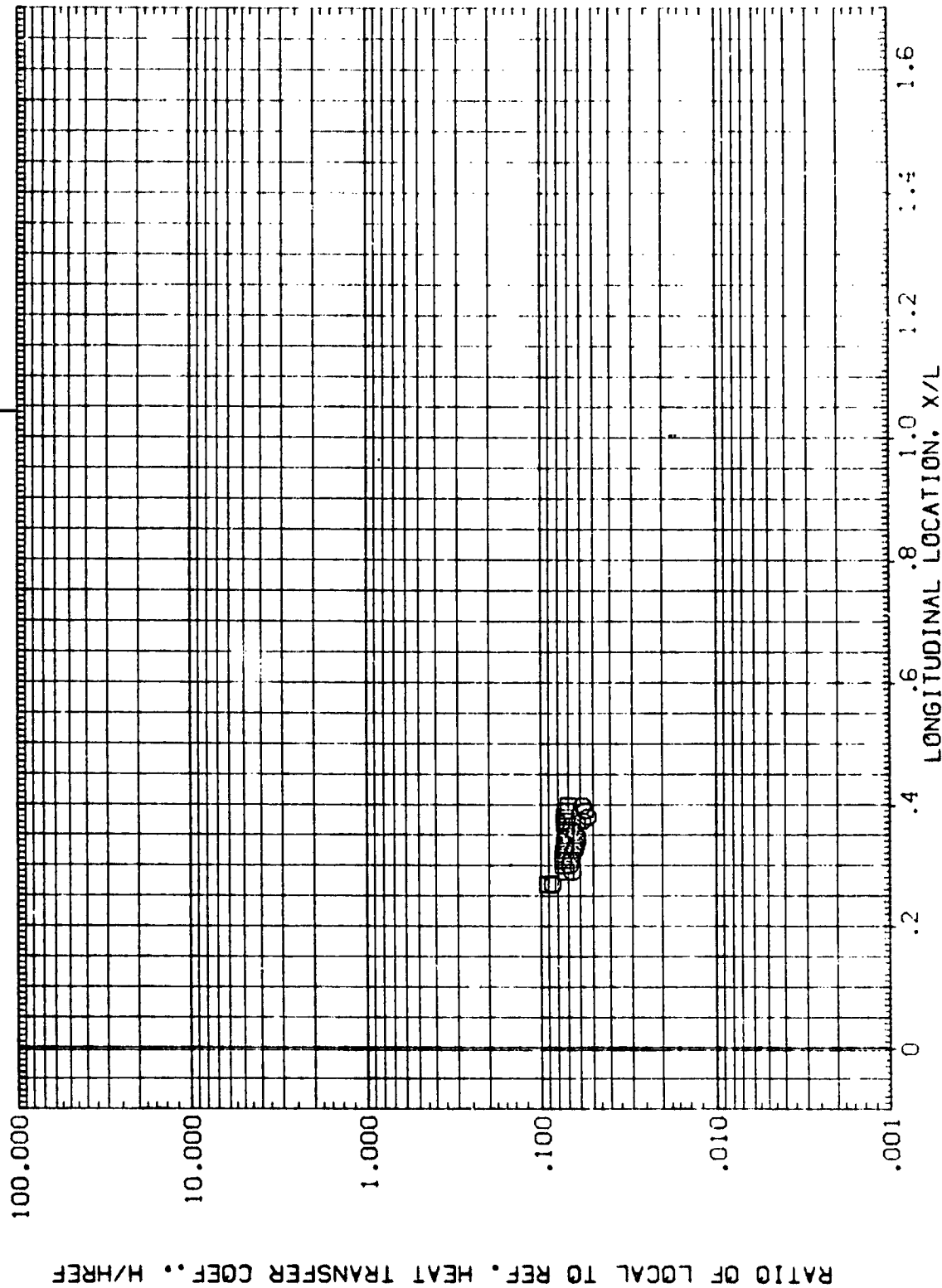


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300    HAW/HT = .900    PHI = 78.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RN/L  
 (RNBFI1) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP -5.000 -5.000 5.000  
 (RNBFI2) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP 5.000 -5.000 5.000

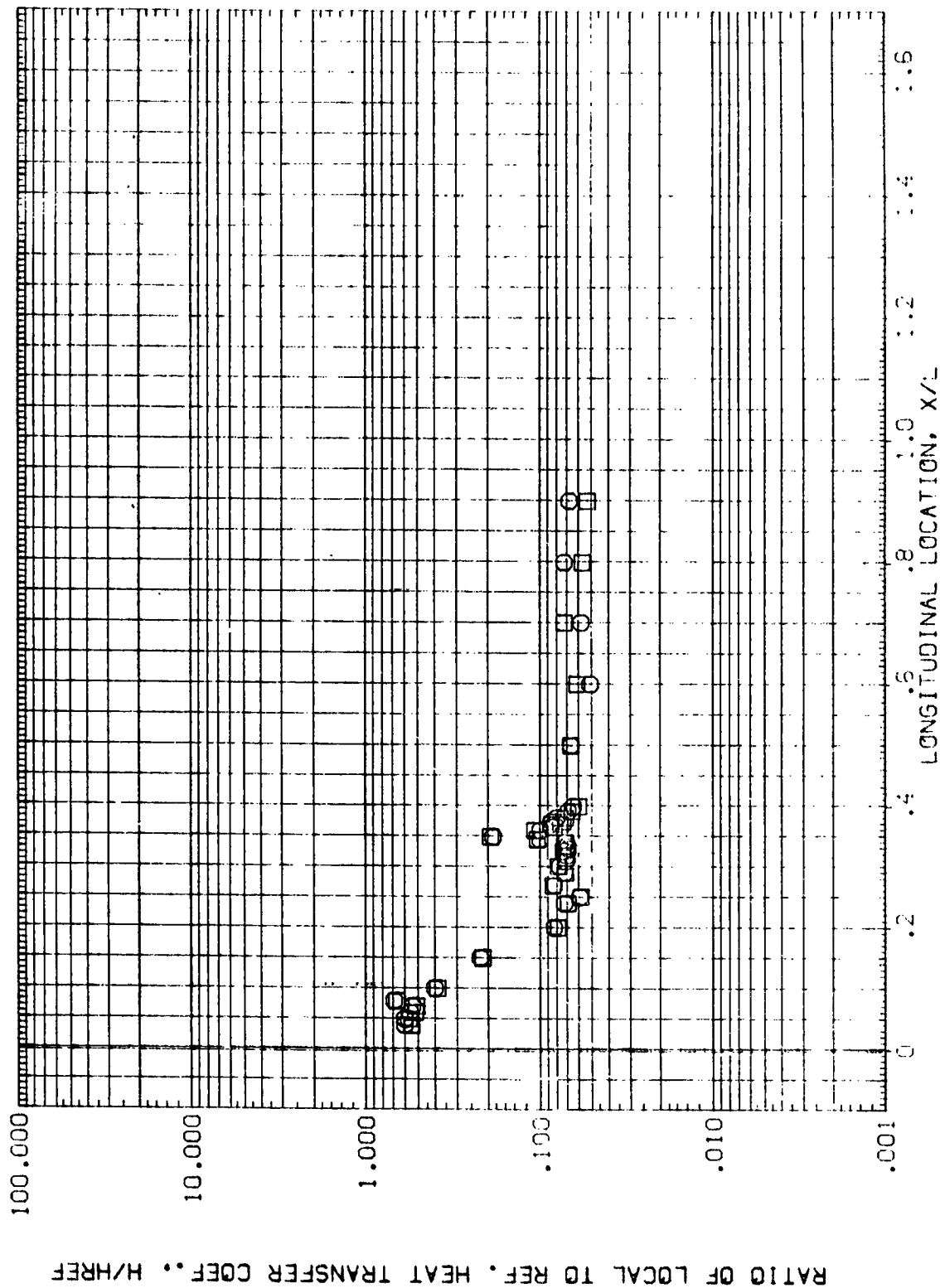


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.500 HAWKITE .900 B41 = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(R)BF11)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(R)BF12)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

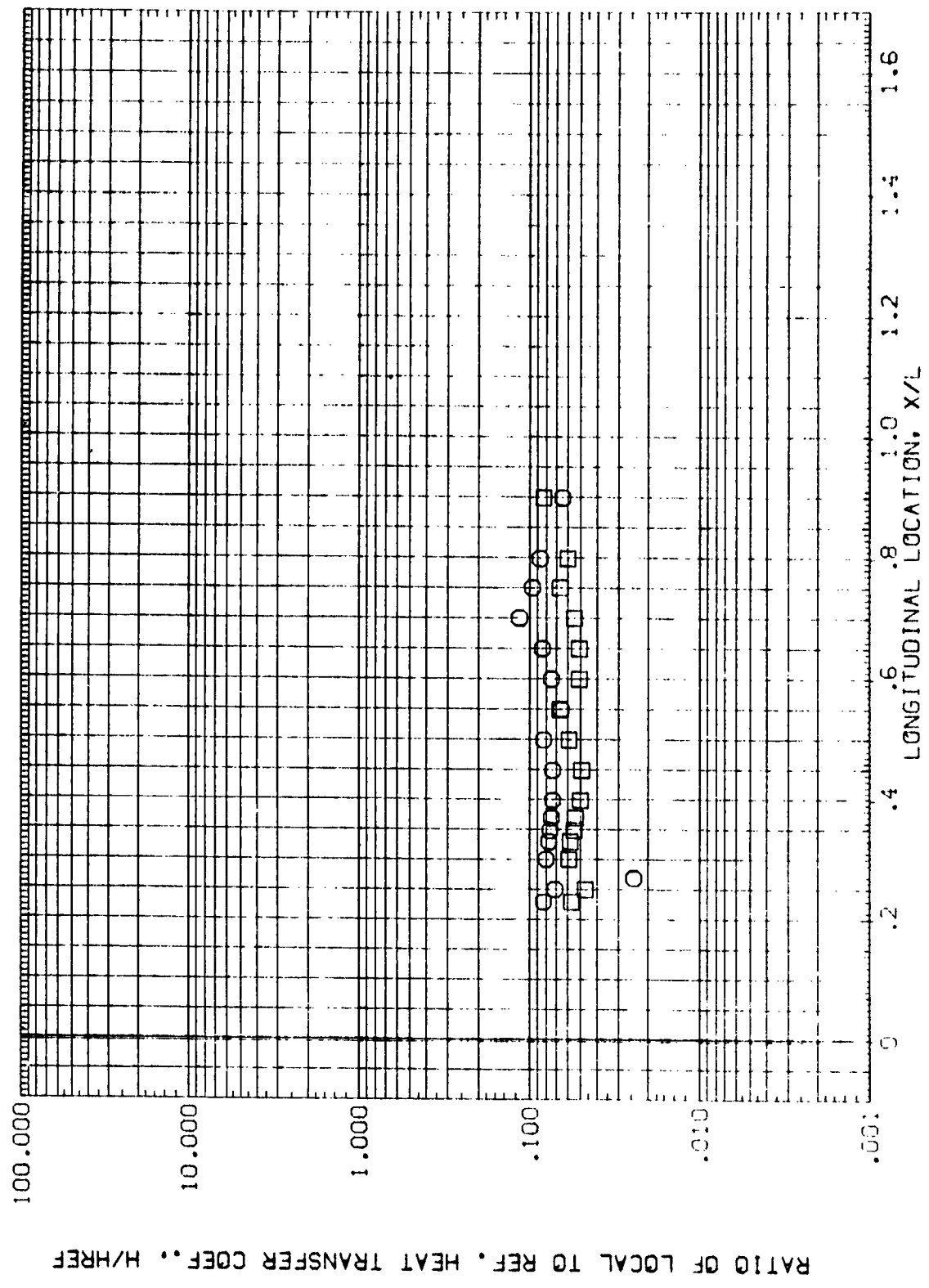


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/H = .900 PHI = 112.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI1) ARC3.5-211(1H48)OT /NIPPLE/P/TRIP  
 (RNBFI2) ARC3.5-211(1H48)OT /NIPPLE/P/TRIP

ALPHA BETA RN/L  
 -5.000 -5.000 5.000  
 5.000 -5.000 5.000

EXT TANK  
 EXT TANK

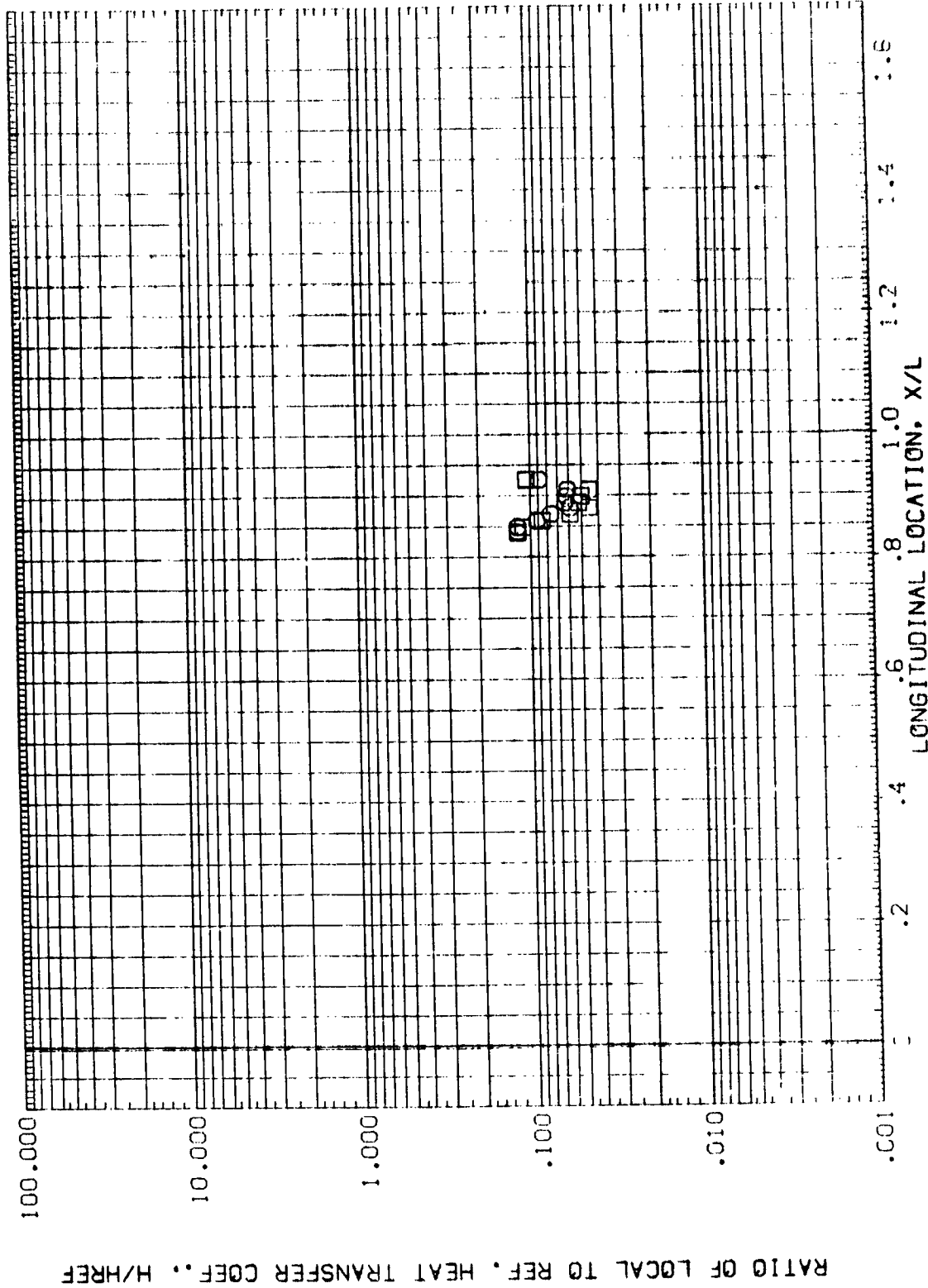


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 H<sub>A</sub>N/HT = .900 P-HI = 125.400

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNGF11)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000  
 (RNGF12)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      -5.000      5.000

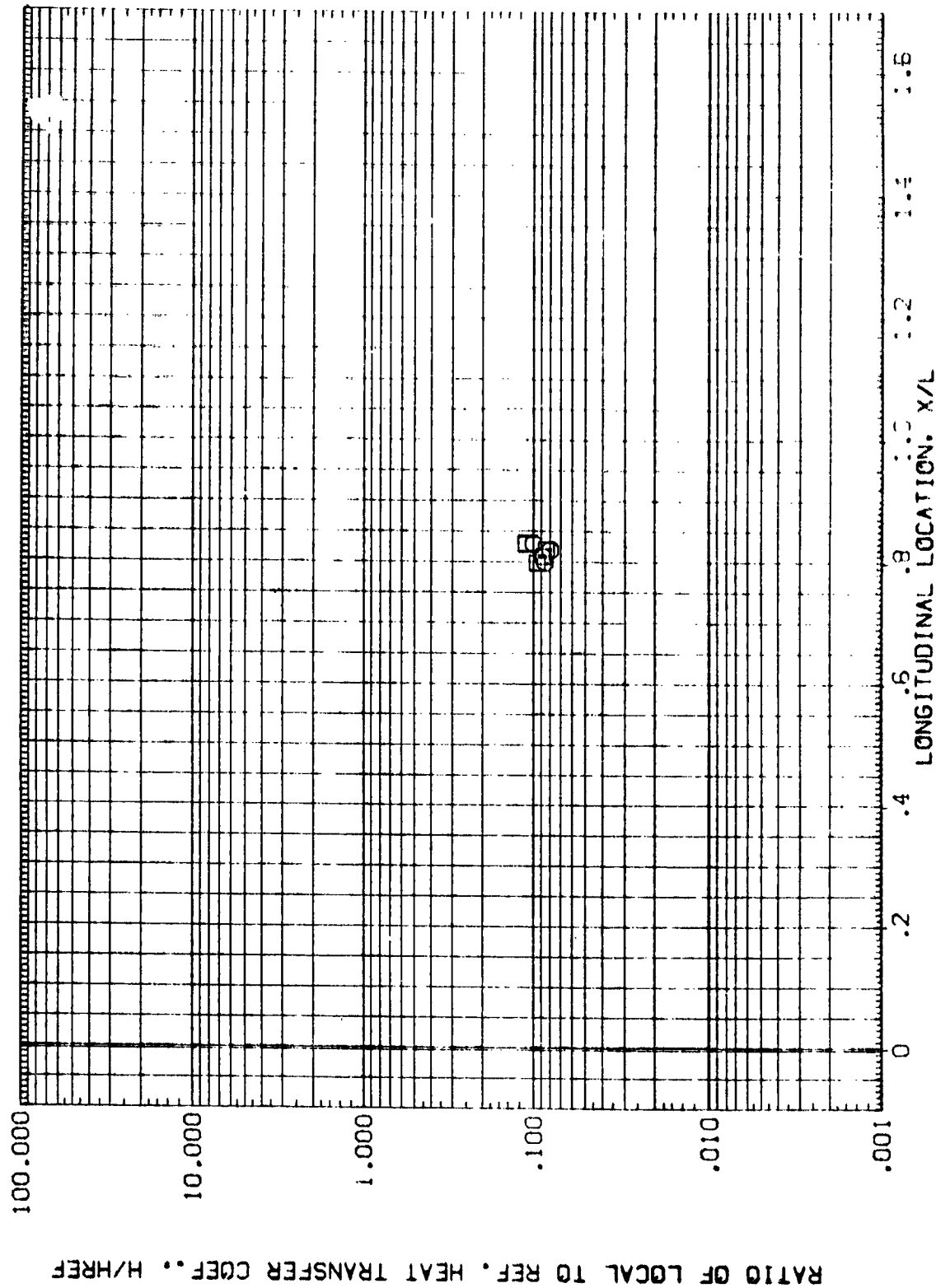


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300      HAW/HT = .900      PHI = 129.300

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI1) 8 ARC3.5-2111(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2) ARC3.5-2111(IH48)OT /NIPPLE/F/TRIP

EXT TANK EXT TANK  
 ALPHA BETA  
 -5.000 -5.000  
 5.000 5.000

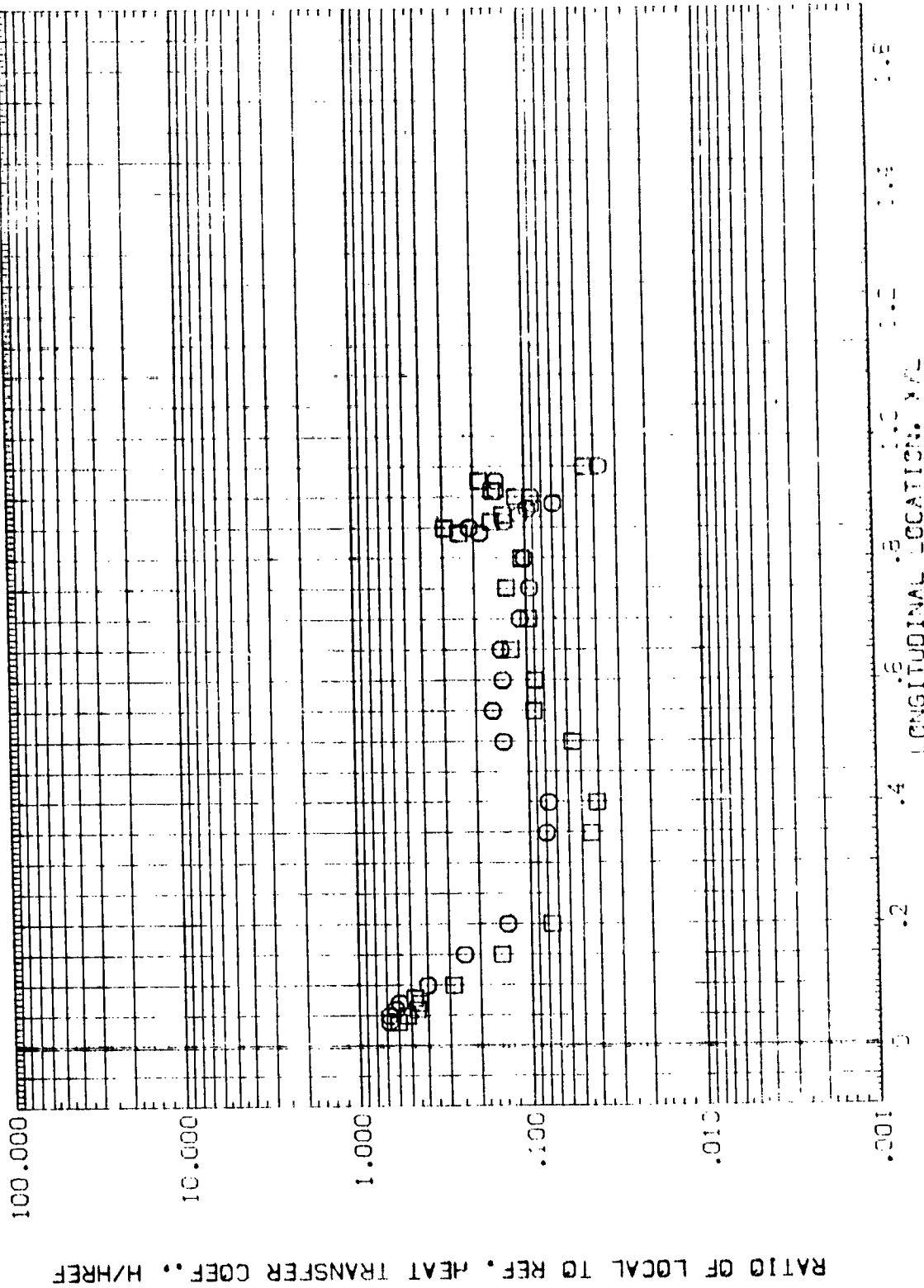


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300  $H^+_{REF} = 0.800$   $H^+_{REF} = 105.000$  PAGE 046



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R14B11) ARC3.5-211(1448)OT /NIPPLE/P/TRIP  
 (R14B12) ARC3.5-211(1448)OT /NIPPLE/P/TRIP

EXT TANK EXT TANK  
 ALPHA BETA R<sub>h</sub>/L  
 5.000 -5.000 5.000  
 5.000 -5.000 5.000

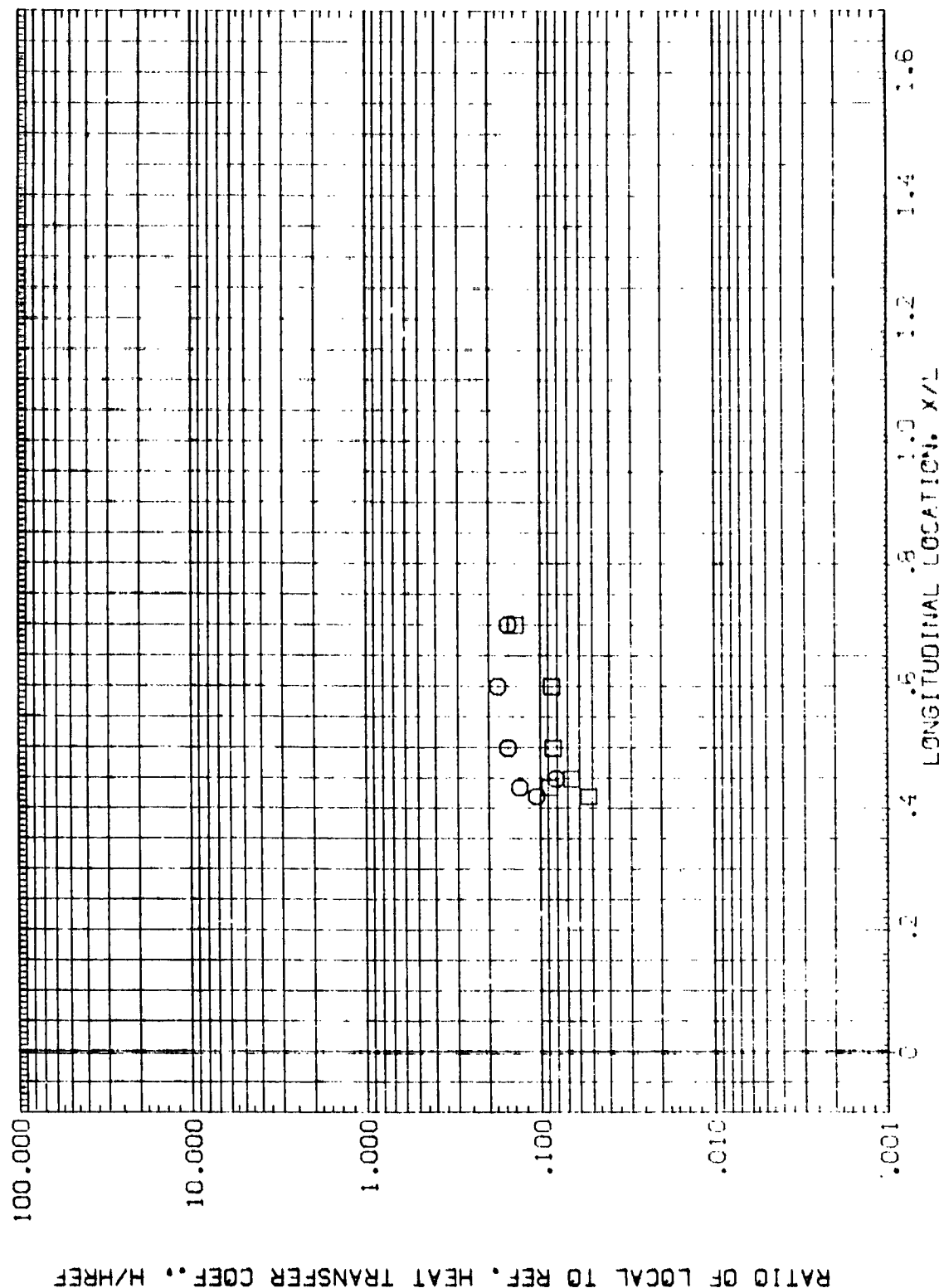


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.000 MAXIMUM 0.000 142.370

DATA SET SYMBOL- CONFIGURATION DESCRIPTION  
 (RNBFI1) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK  
 EXT TANK  
 ALPHA -5.000 5.000  
 BETA -5.000 5.000  
 RN/L 5.000 5.000

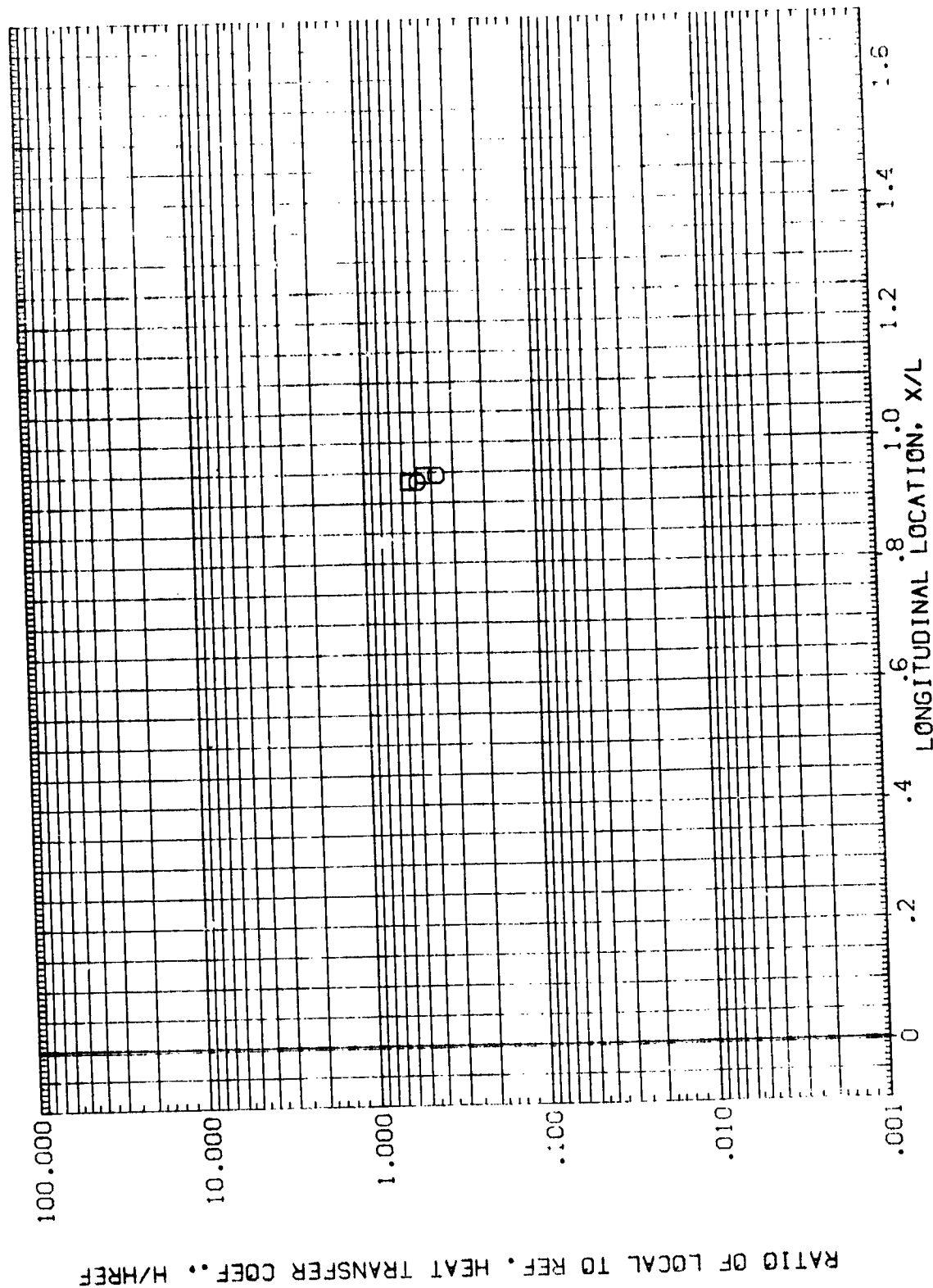


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFI1)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK    EXT TANK  
 ALPHA    BETA    RN/L  
 -5.000    -5.000    5.000  
 5.000    -5.000    5.000

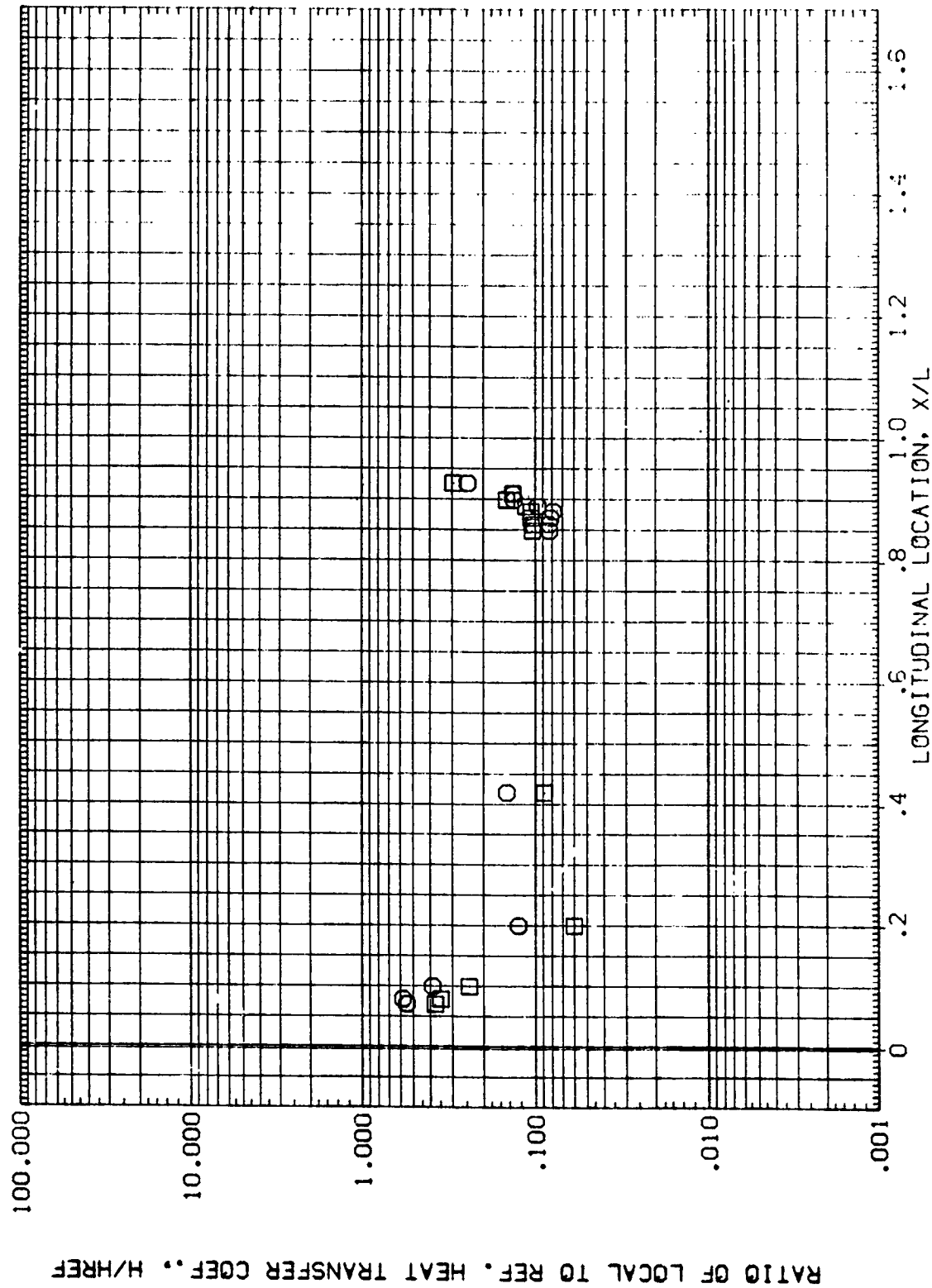


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 P-1 = 157.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI1) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

ALPHA BETA RN/L  
 -5.000 -5.000 5.000  
 5.000 -5.000 5.000

EXT TANK  
 EXT TANK

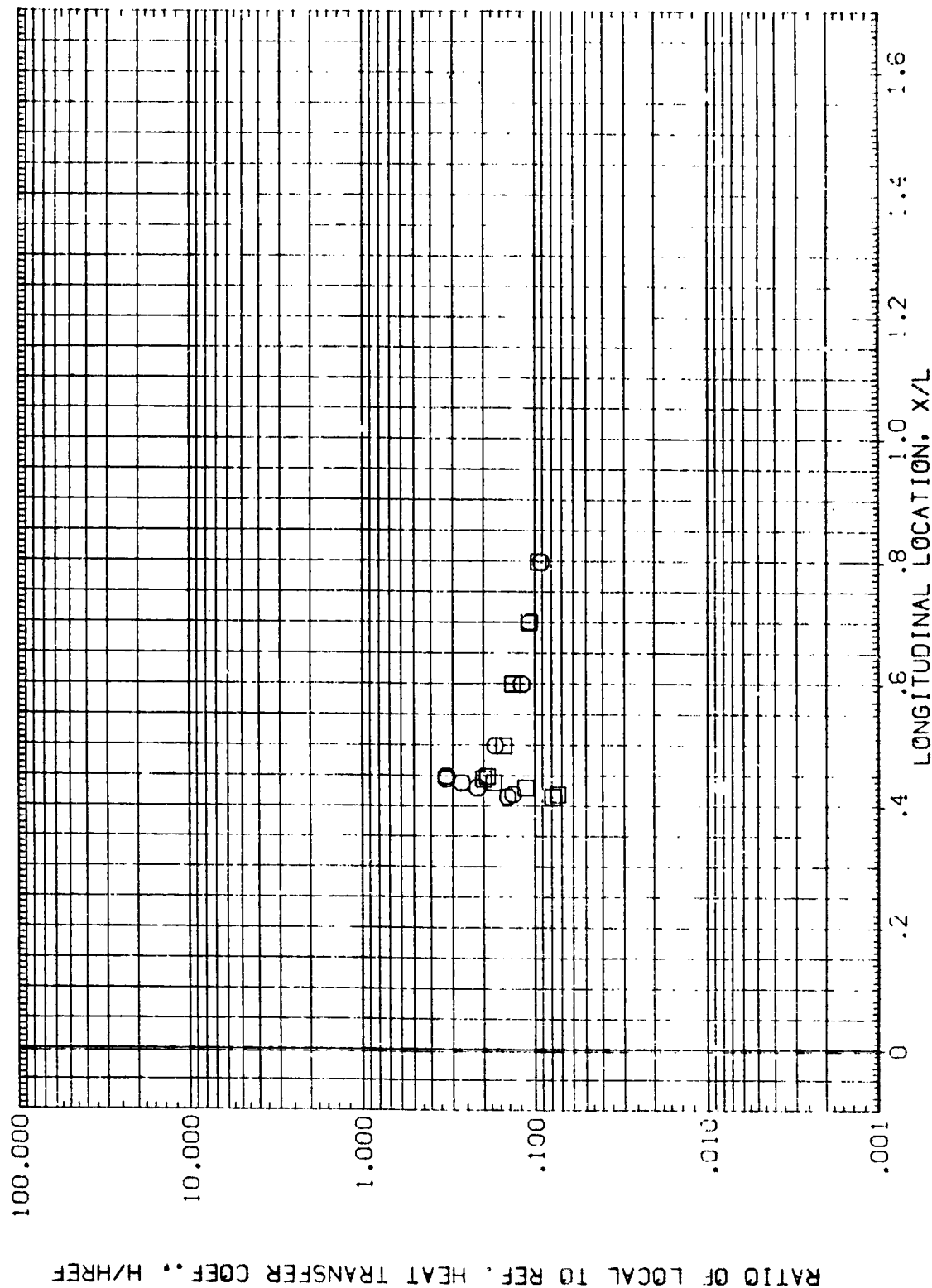


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HTE = .900 PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI1)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000  
 (RNBFI2)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      -5.000      5.000

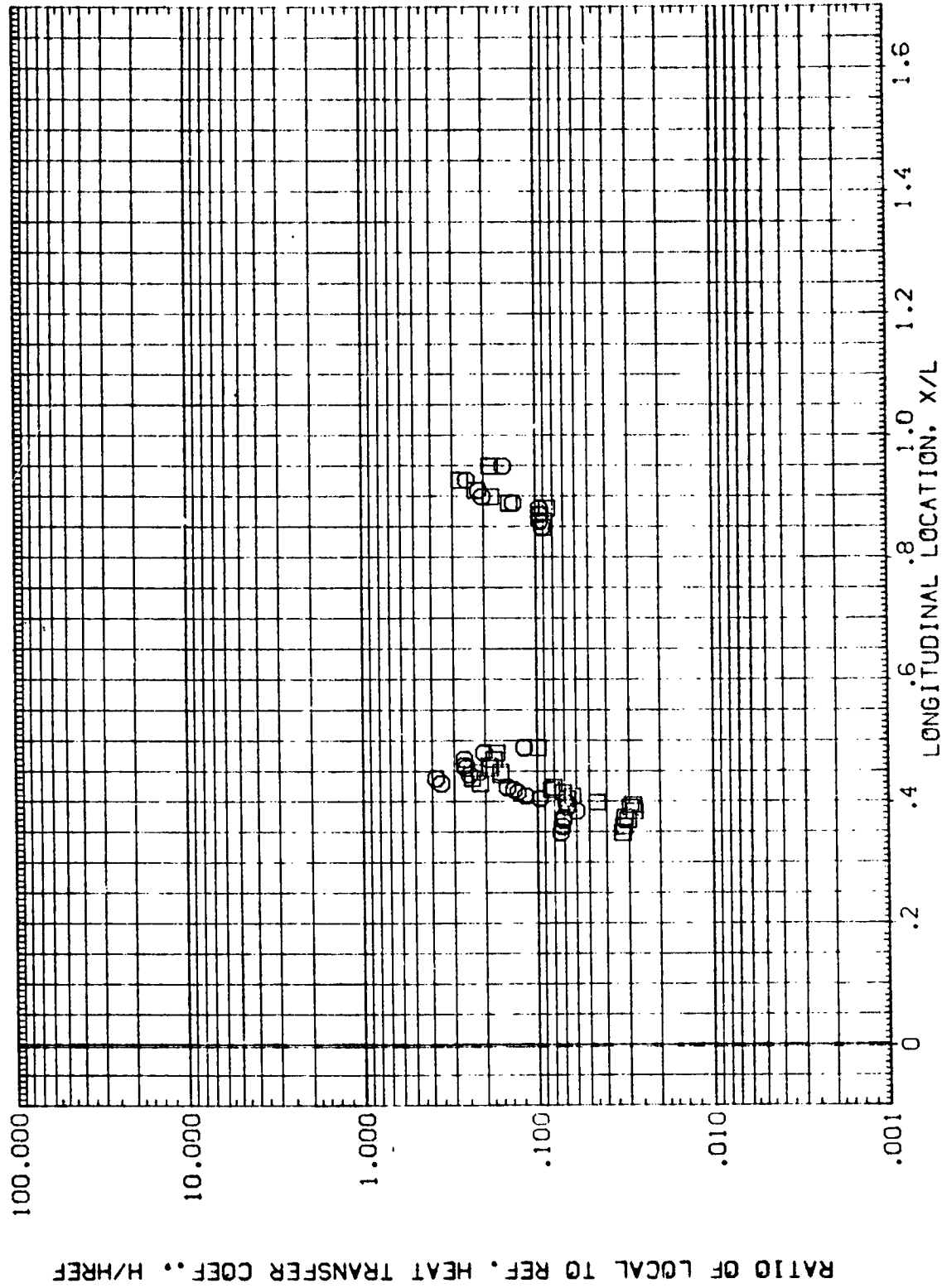


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300      HA\*/HT = .900      PHI = 168.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RMBF11) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
(RMBF12) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK EXT TANK  
ALPHA BETA RN/L  
-5.000 -5.000 5.000  
5.000 -5.000 5.000

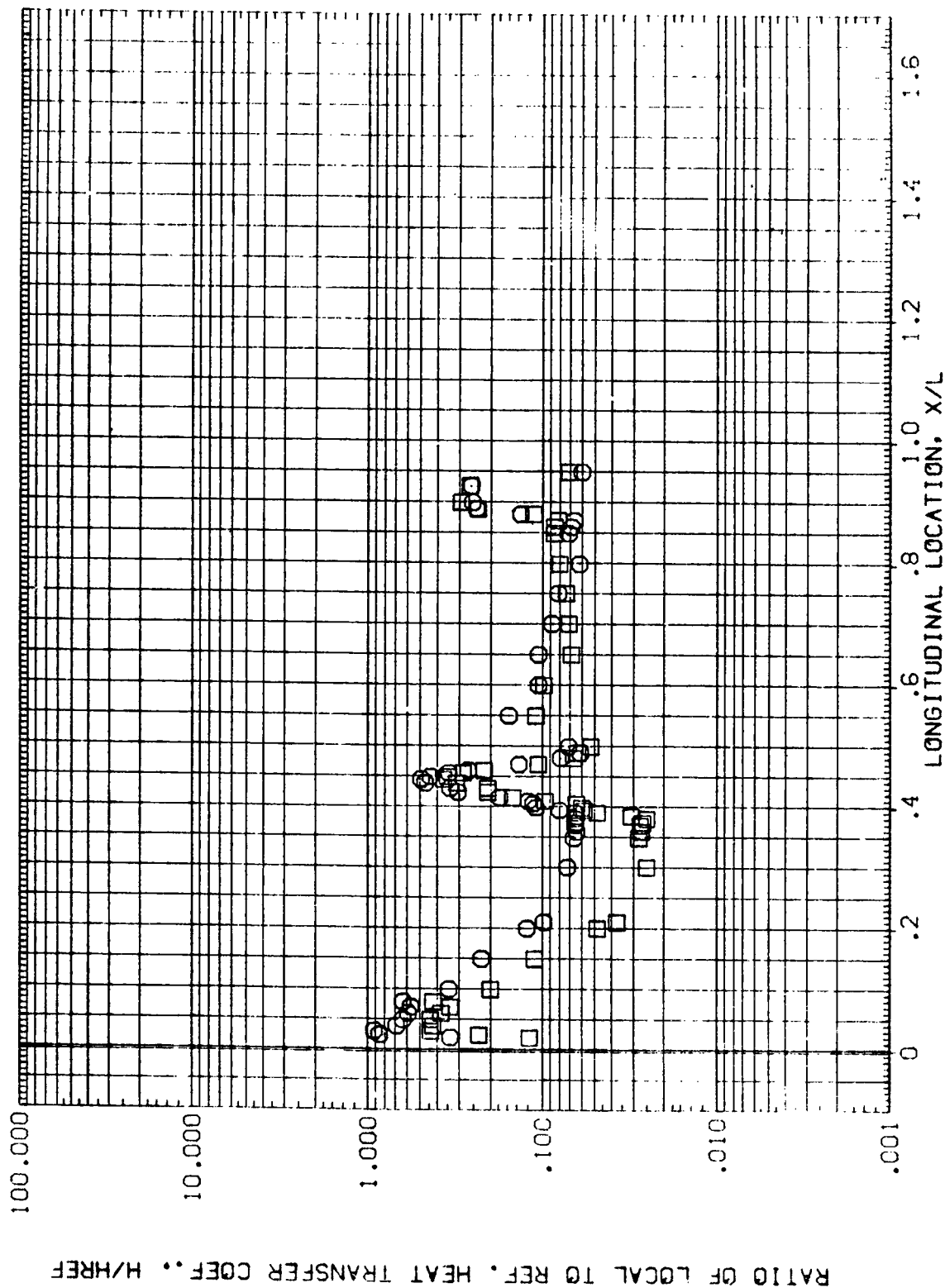


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNB11)	ARC3.5-211(1448)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNB12)	ARC3.5-211(1448)CT /NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

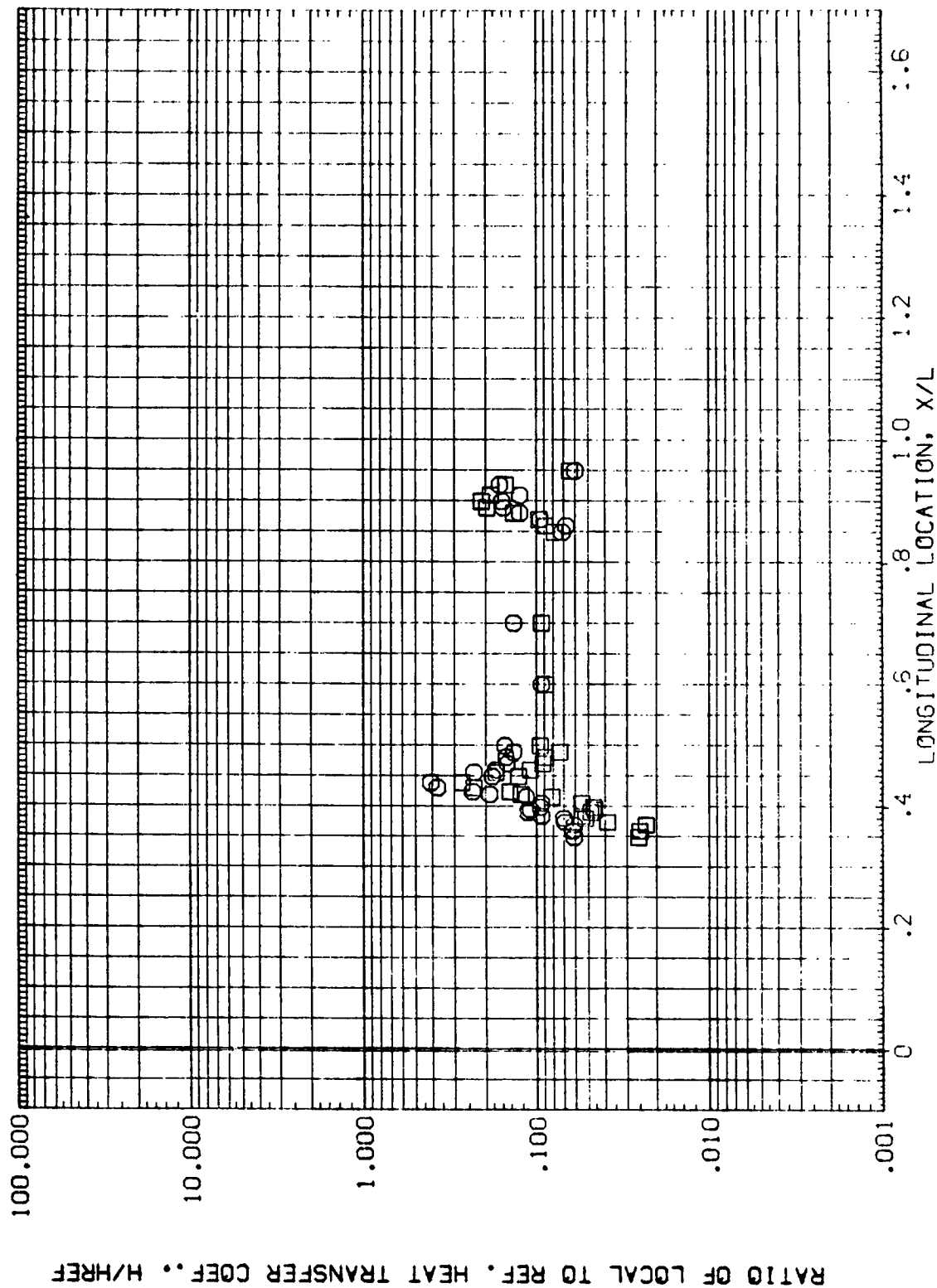


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK,  $BETA = -5.0$

MACH = 3.000 HAWAII = 300 W-I = 191.250

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFI1)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNBFI2)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP		5.000	-5.000	5.000

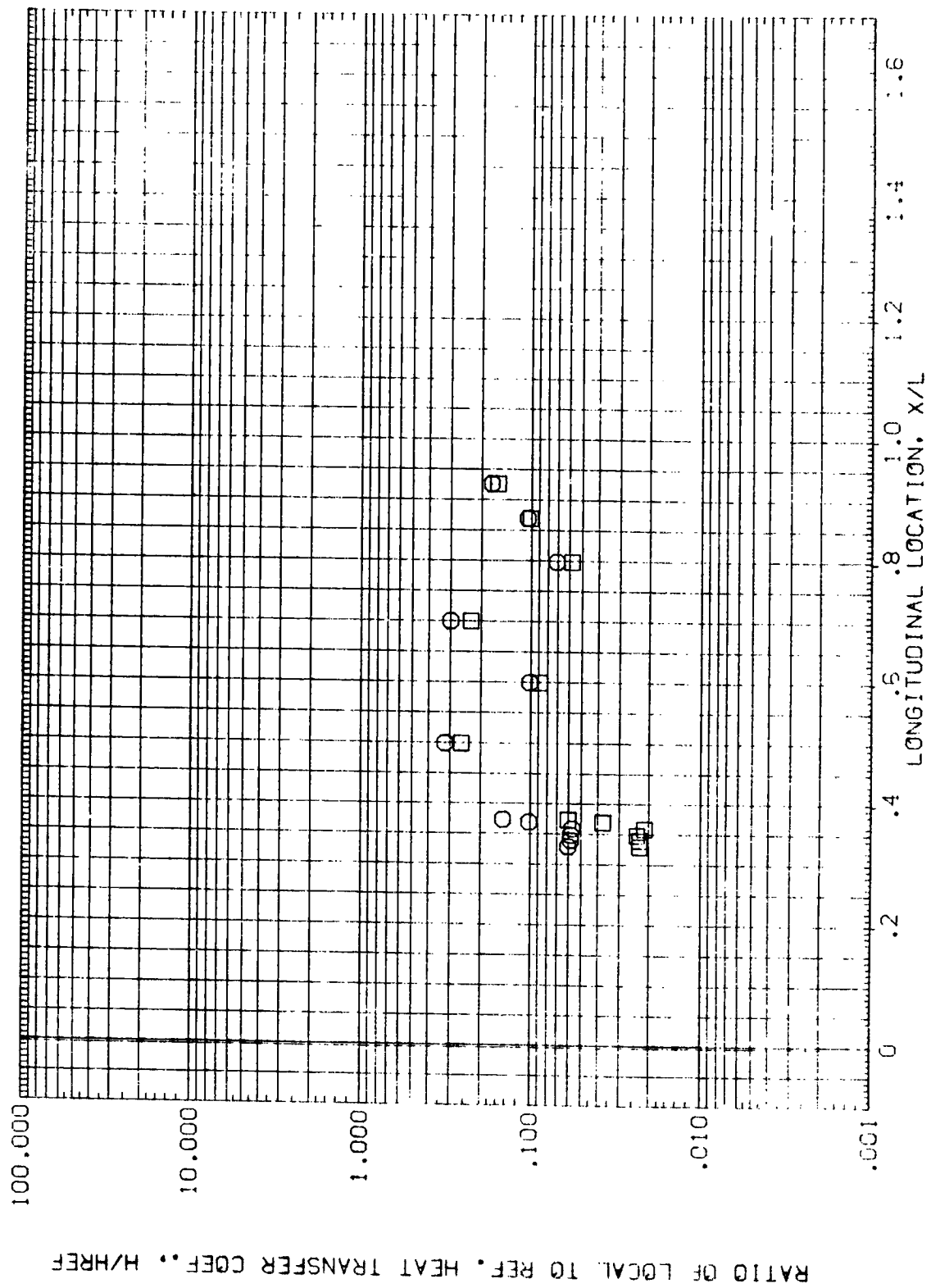


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300 HAW/HT = .200 PHI = 197.000 PAGE 354



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNGF11)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	-5.000	-5.000	5.000
(RNGF12)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

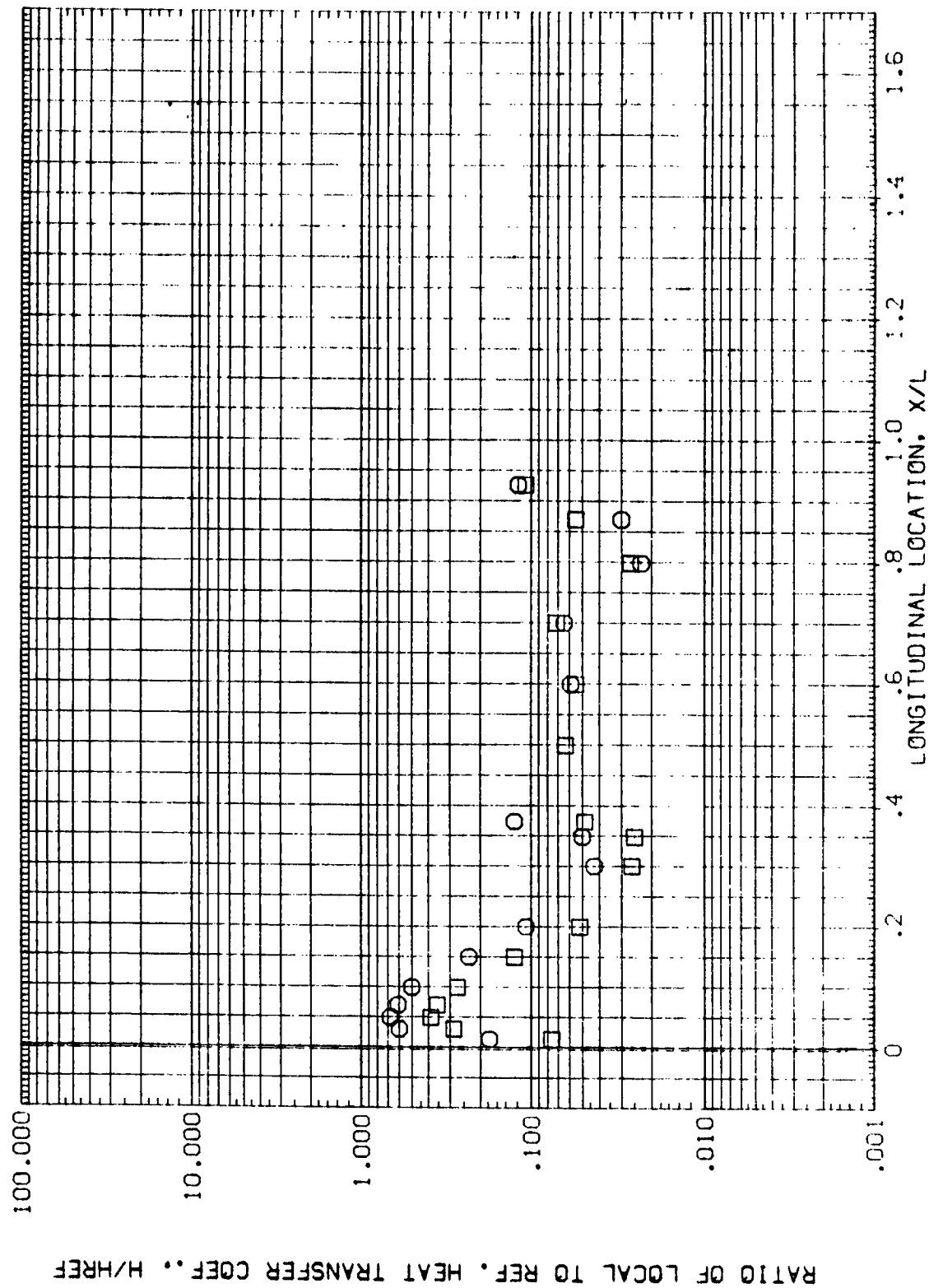


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300  $PAW/HREF = 900$   $PHI = 209.800$

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L  
 (RNBFI1)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    -5.000    5.000  
 (RNBFI2)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    -5.000    5.000

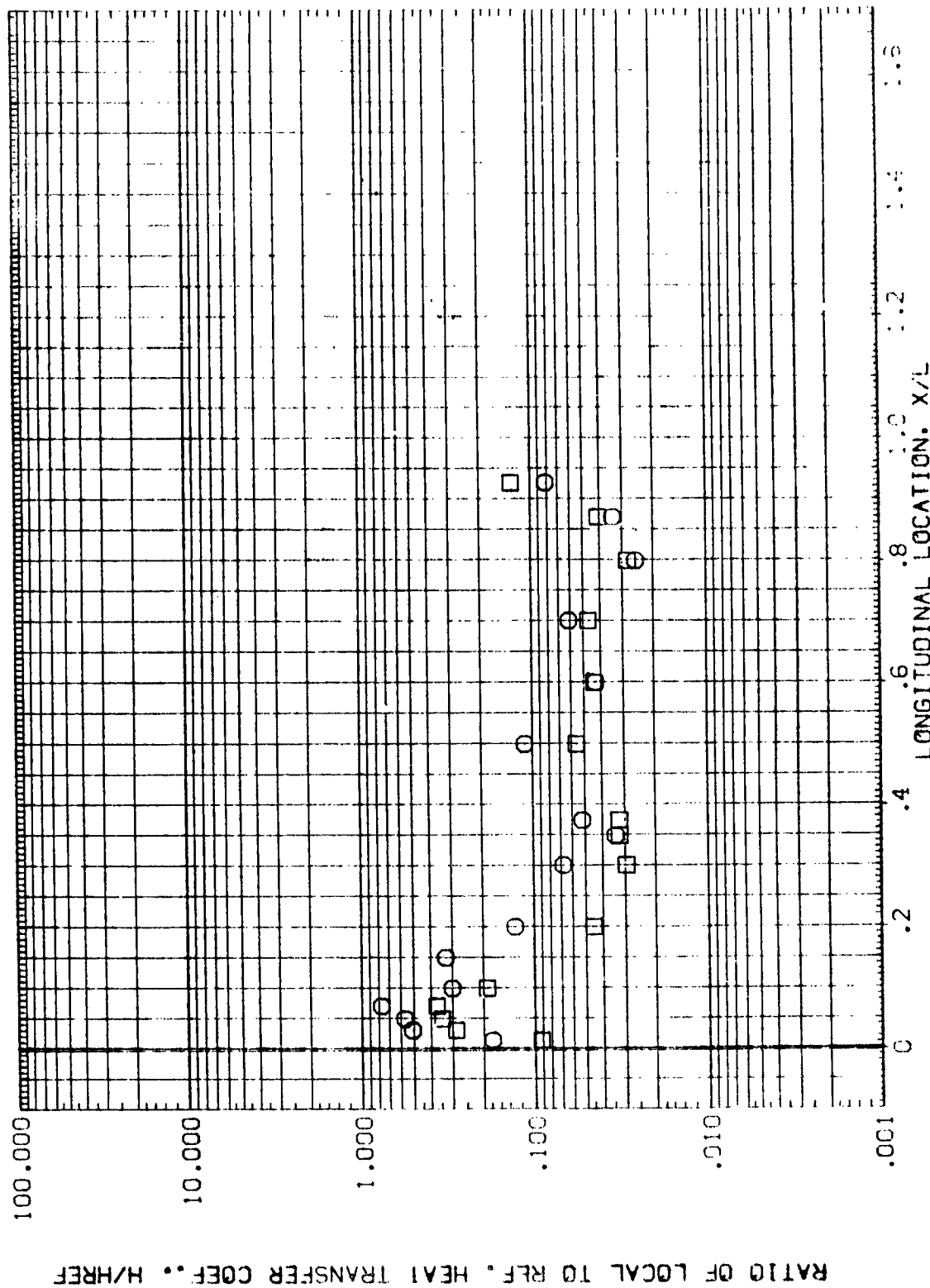


FIG. 08 EFFECT OF ANGLE OF ATTACK ON EXTERNAL TANK, BETA = -5.0

MACH = 5.300    HAW/HT = .900    PHI = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RV/L  
 (RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O-S)      .000      .000      5.000  
 (RNBFO8)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

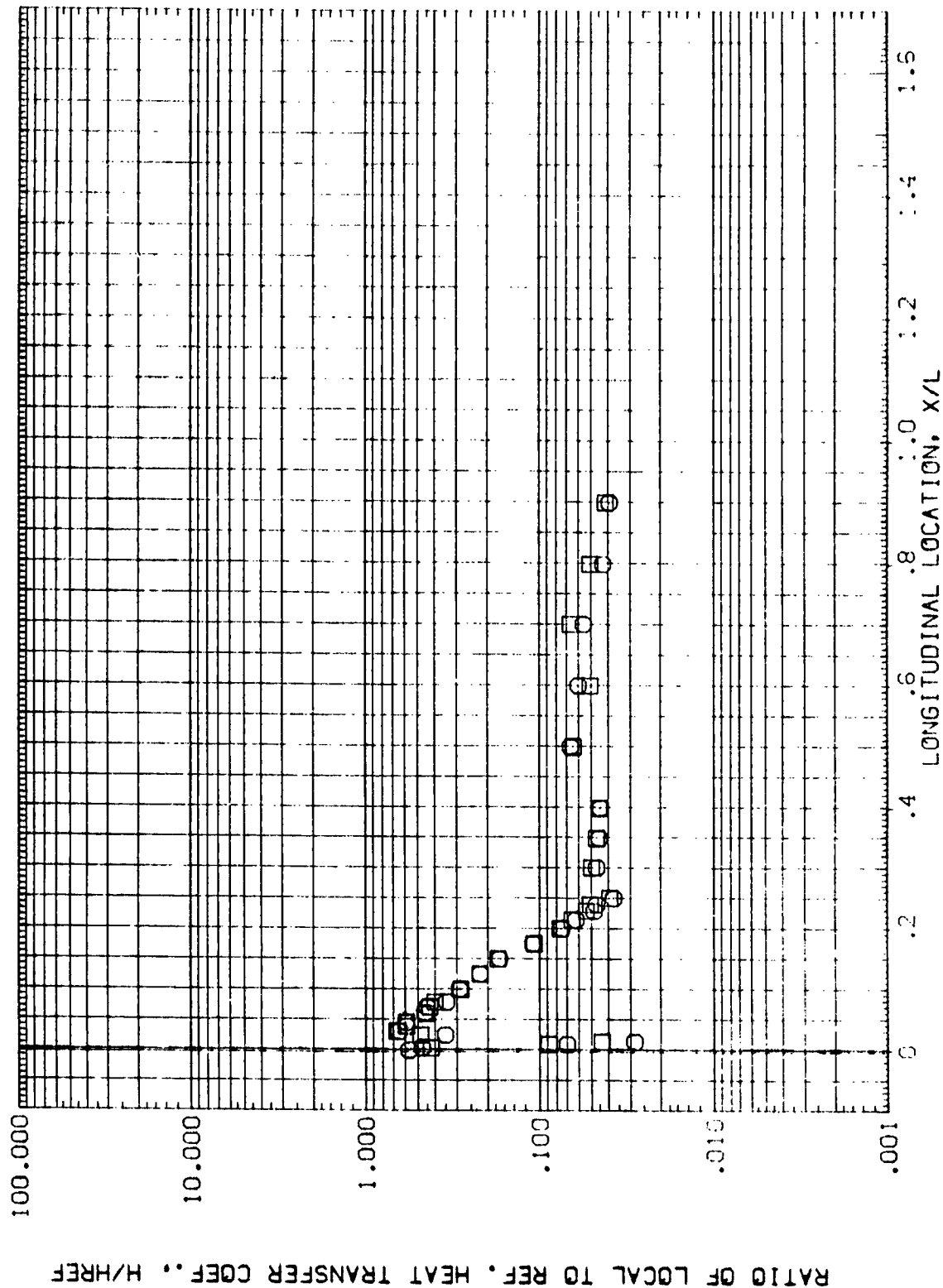


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HREF = .900      PHI = .000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      EXT TANK      .000      .000      5.000  
 (RNBFO8)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      .000      -5.000      5.000

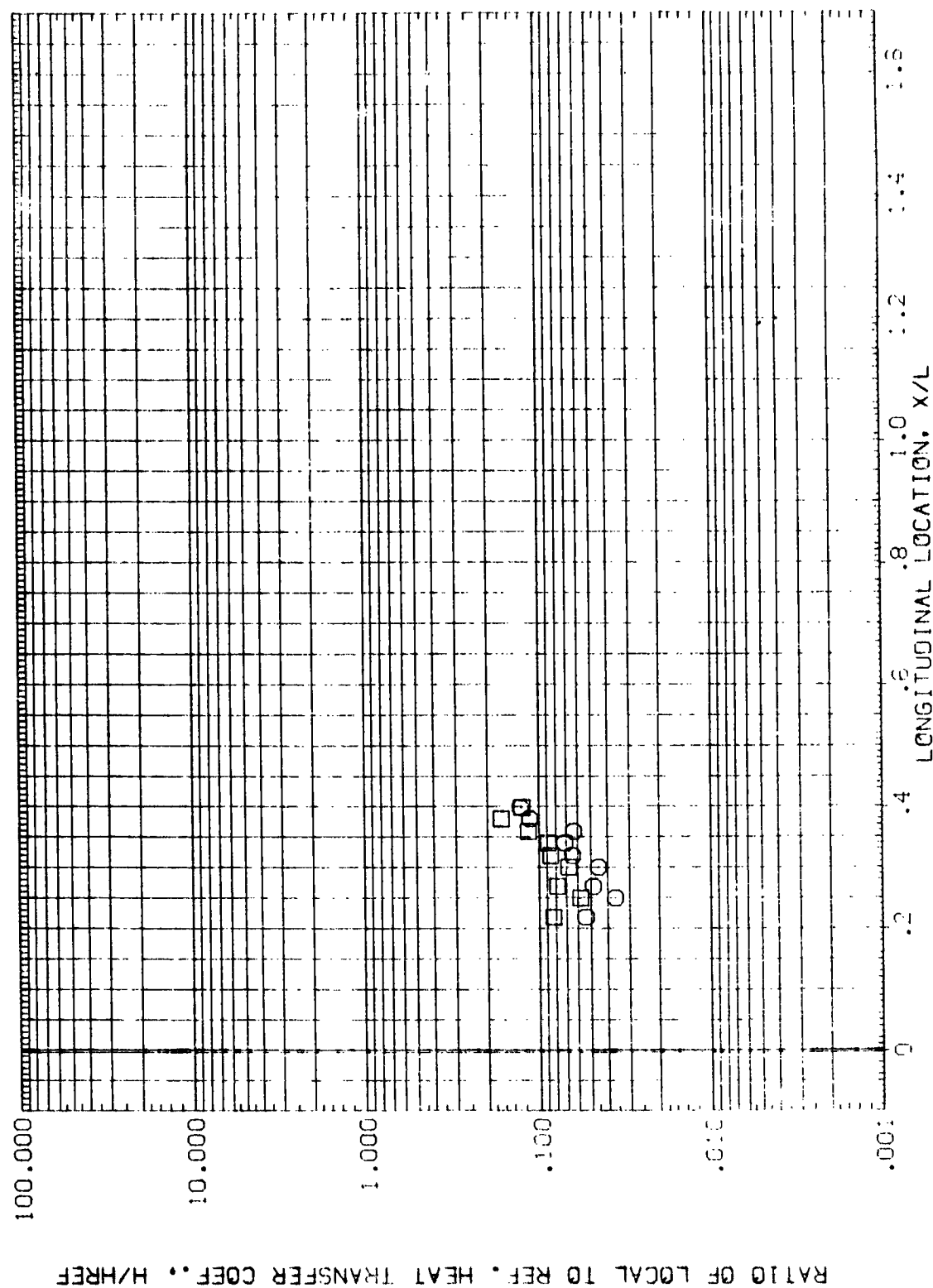


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300       $\frac{h_{AW}}{h_T} = .900$       P-I = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNG02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      5.000

(RNGF08)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

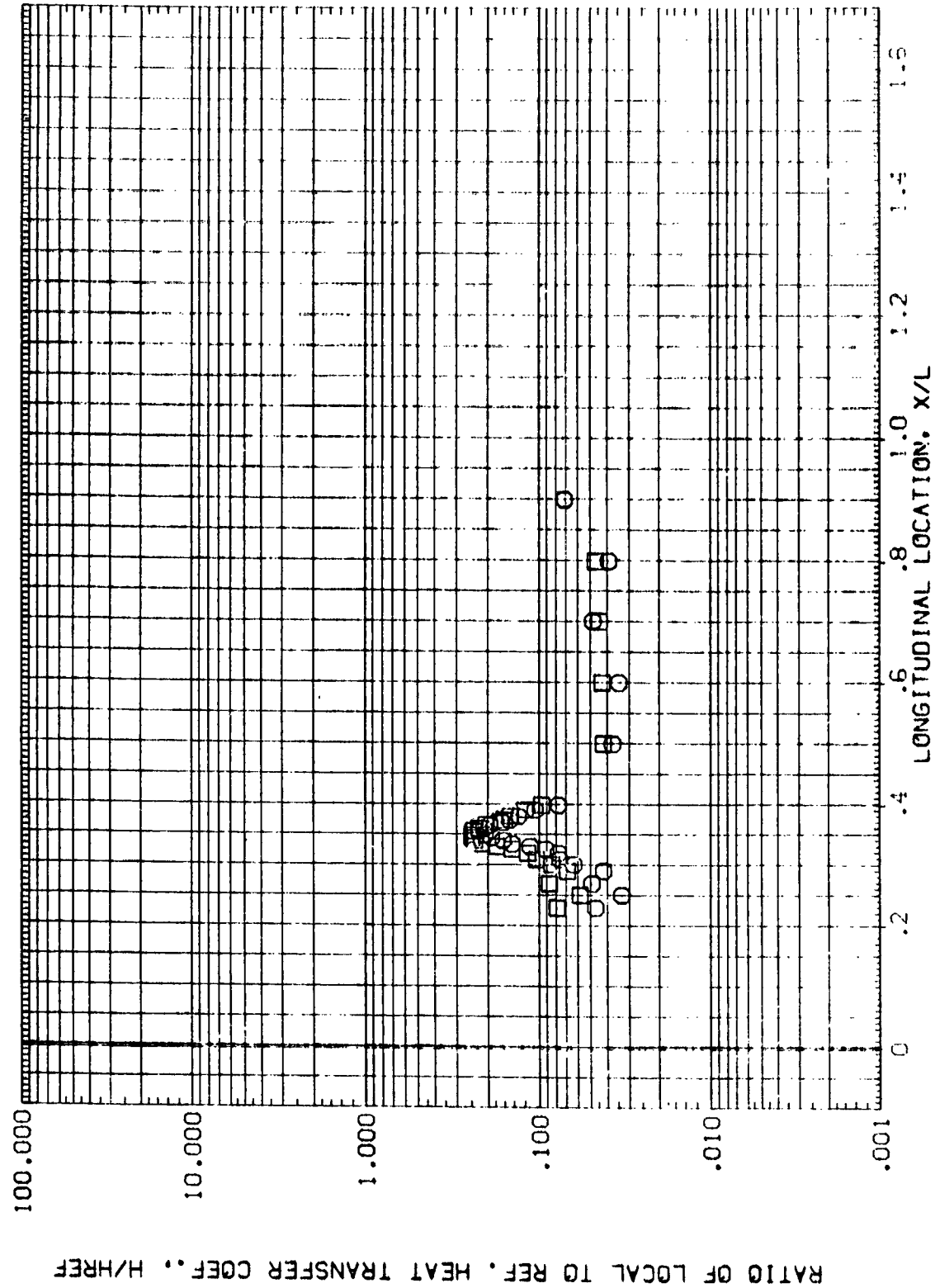


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      P/N/P = .900      PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RW/L  
 (RNBFO2)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    .000    .000    5.000  
 (RNBFC8)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    .000    -5.000    5.000

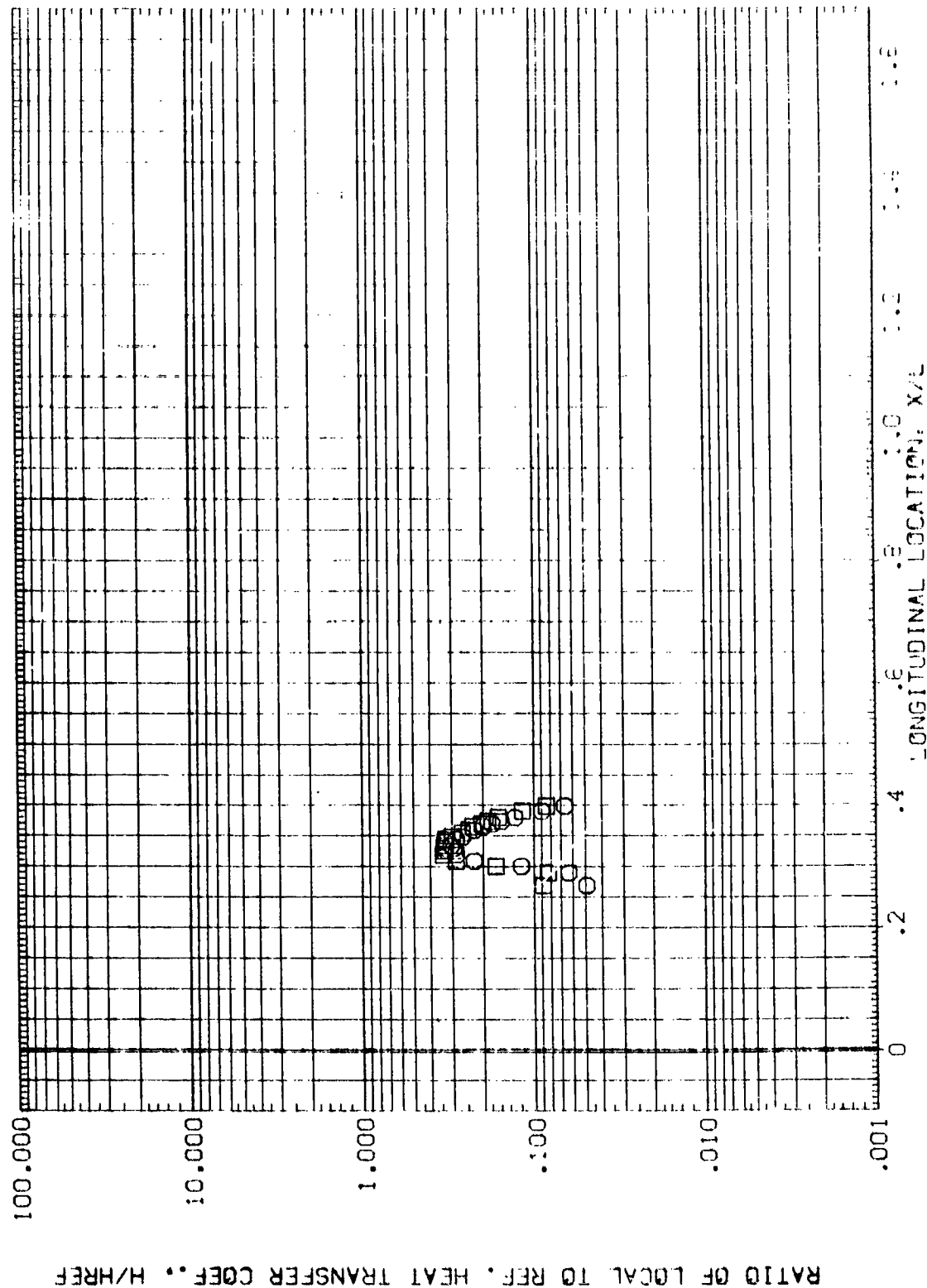


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .800    P-I = 75.000

FIG. 09

DATA SET SYMBOL: (RNGF02) (RNGF08) CONFIGURATION DESCRIPTION: ARC3.5-2111 (H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK: ARC3.5-2111 (H48)OTS/NIPPLE/P/TRIP EXT TANK: ALPHA: .000 .000 BETA: .000 -5.000 RW/L: 5.000 5.000

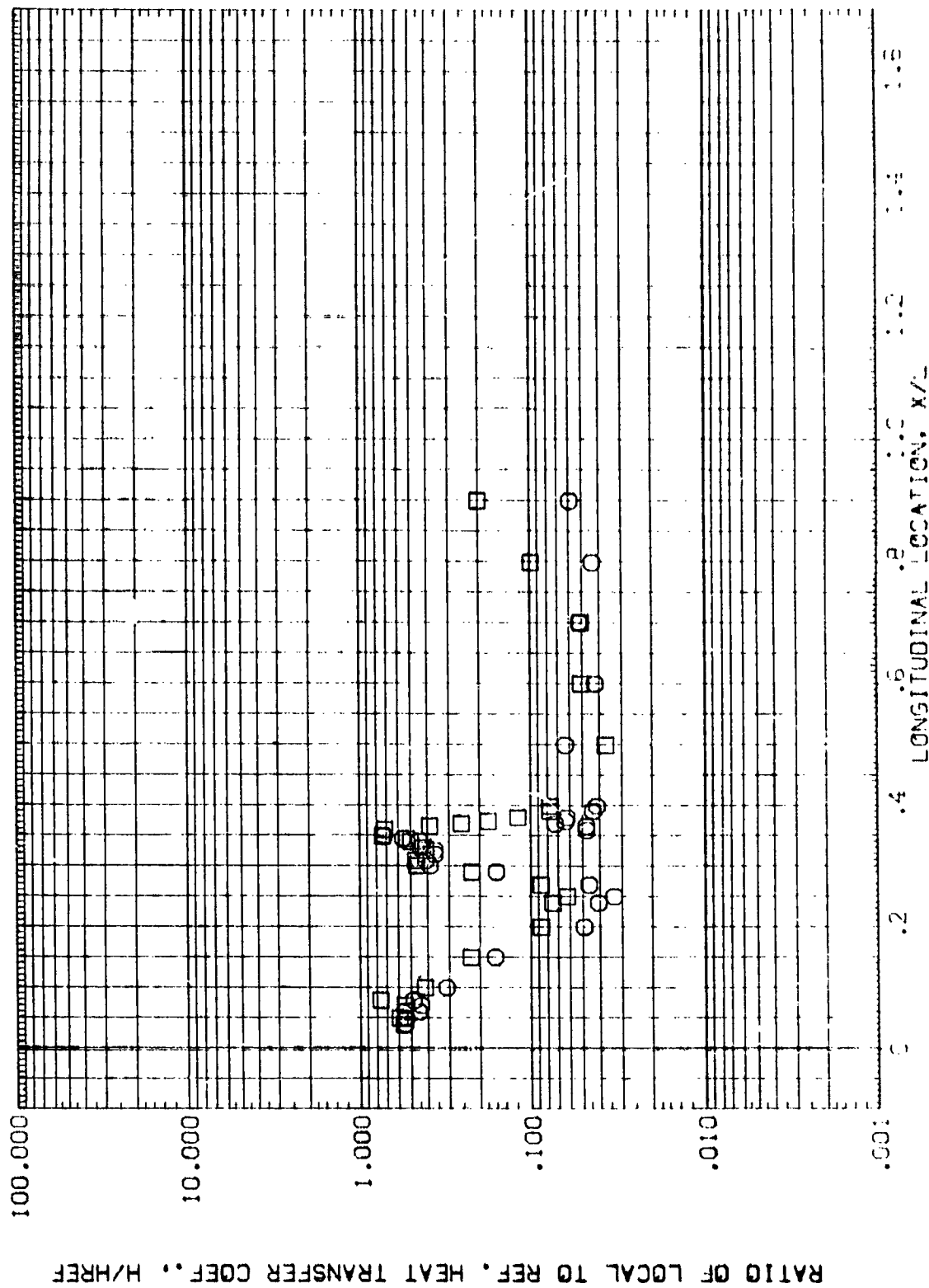


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      5.000

(RNBFO8)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

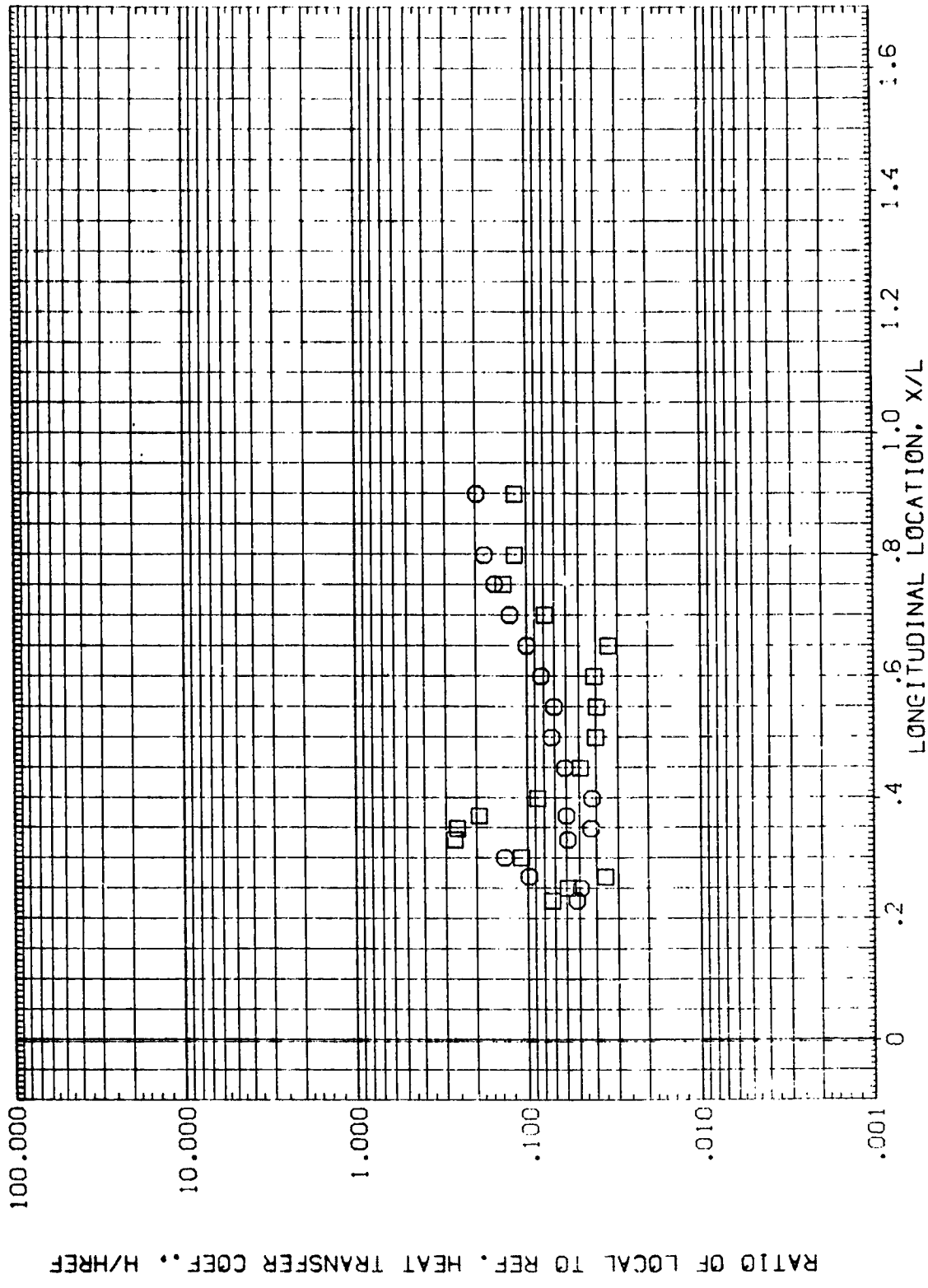


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HREF = .500      PHI = 112.500



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO2)	□	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	5.000
(RNBFO8)	○	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	.000	-5.000	5.000

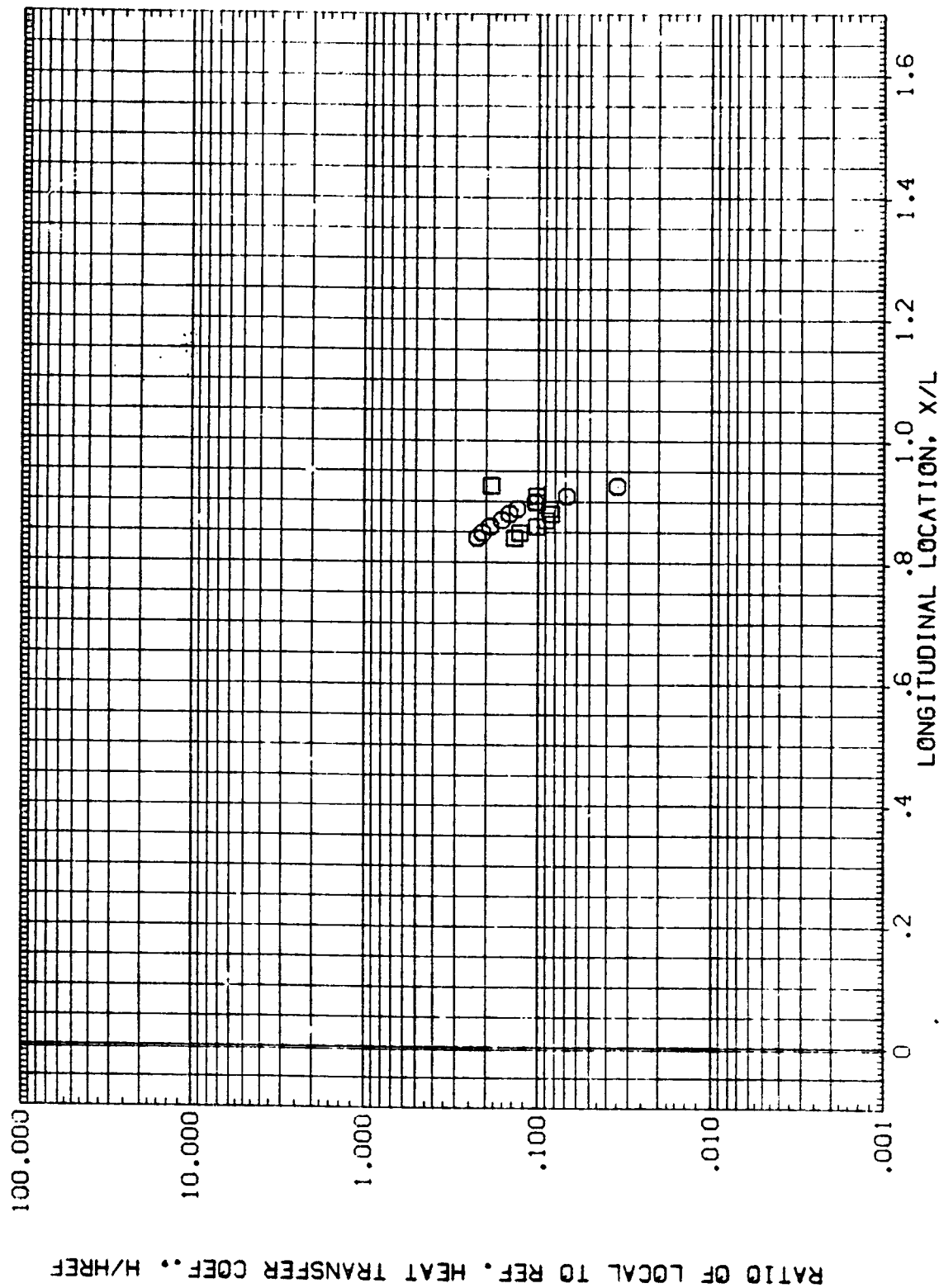


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNB02)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    EXT TANK    .000    .000    5.000  
 (RNB08)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    EXT TANK    .000    -5.000    5.000

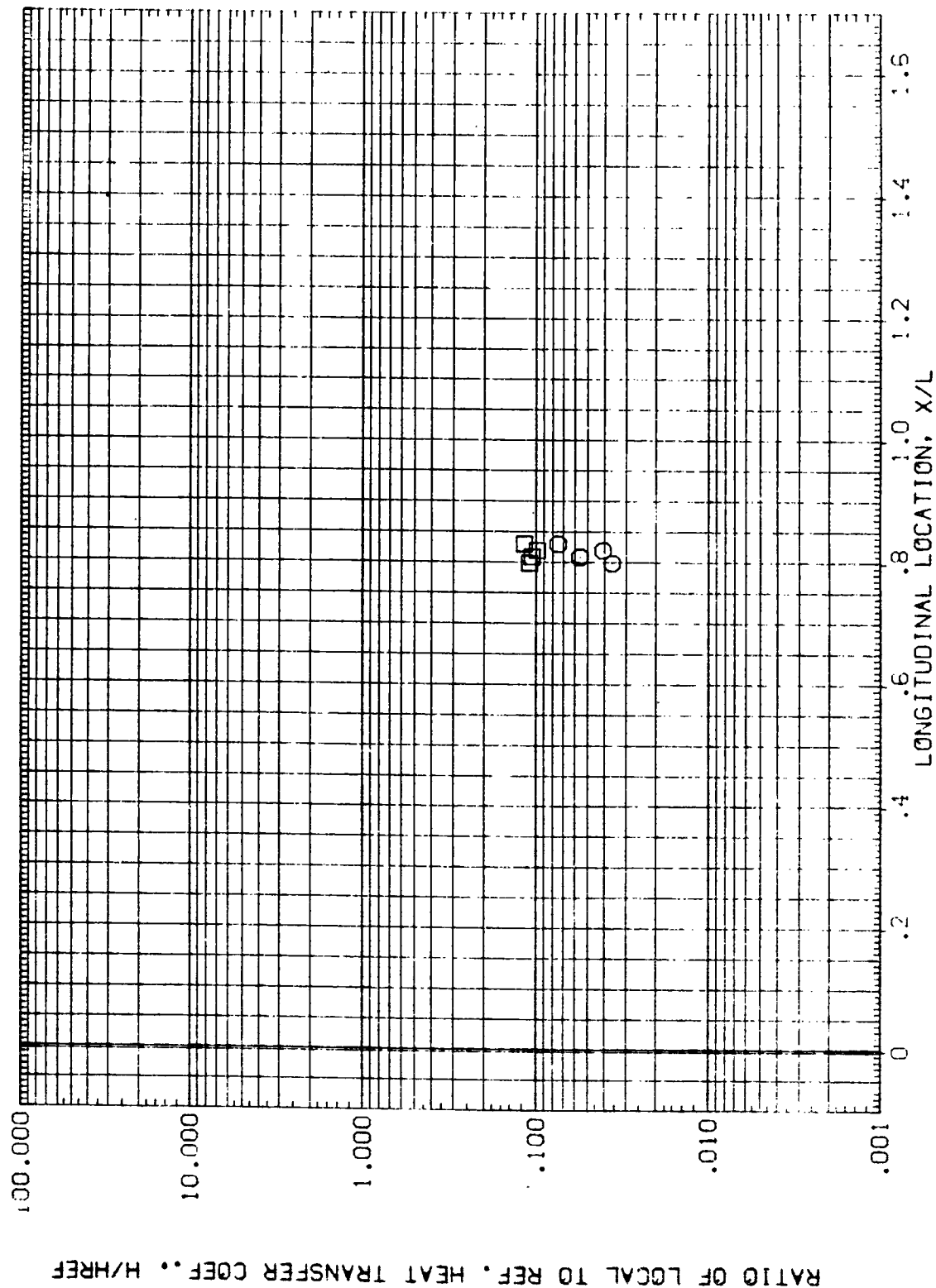


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/UT = .900    G/H = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO2)      □      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      EXT TANK      .000      .000      5.000

(RNBFO8)      □      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      .000      -5.000      5.000

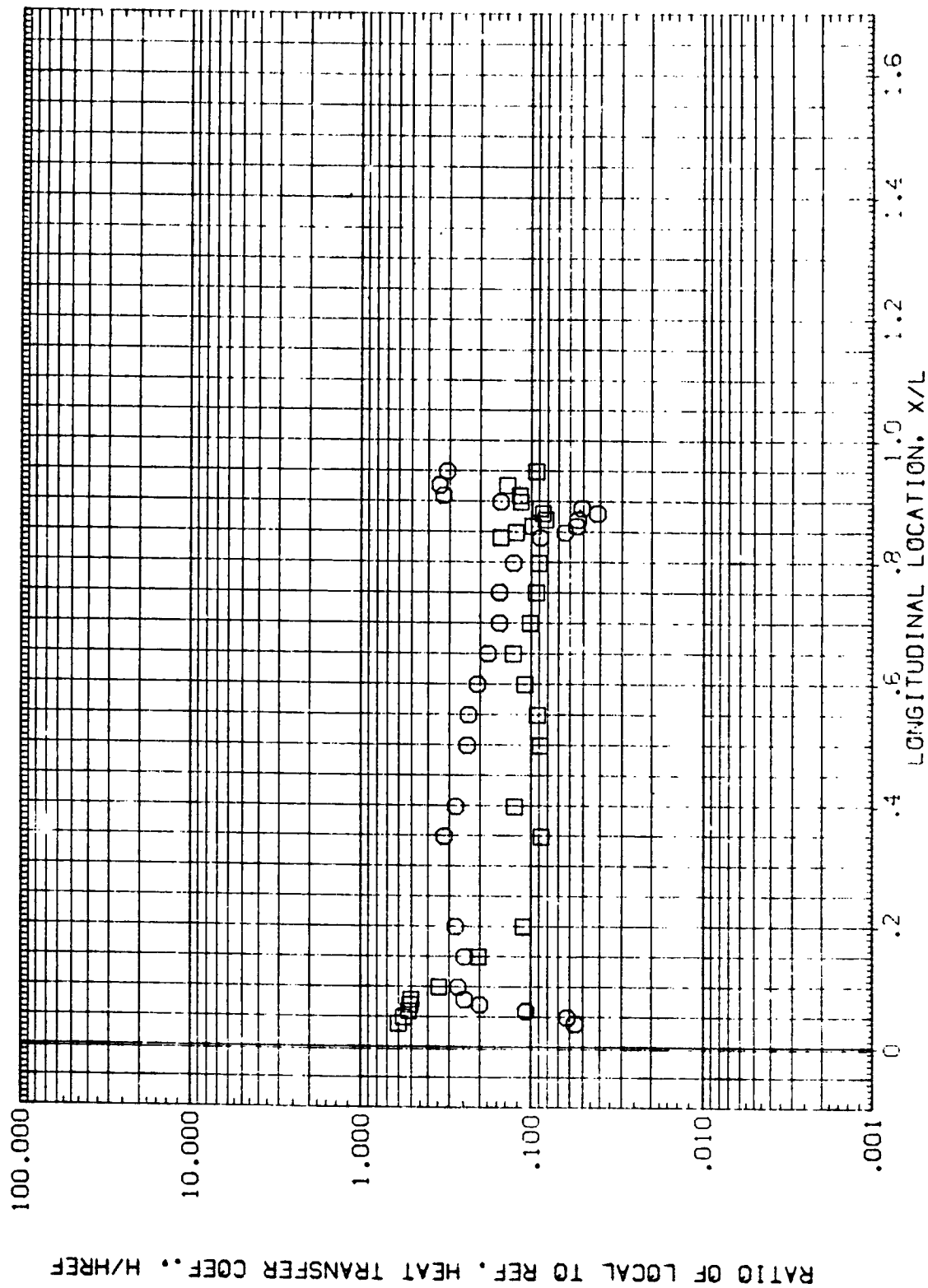


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      P/N = 0.900      P/N = 1.35.0000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      5.000  
 (RNBFO8)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

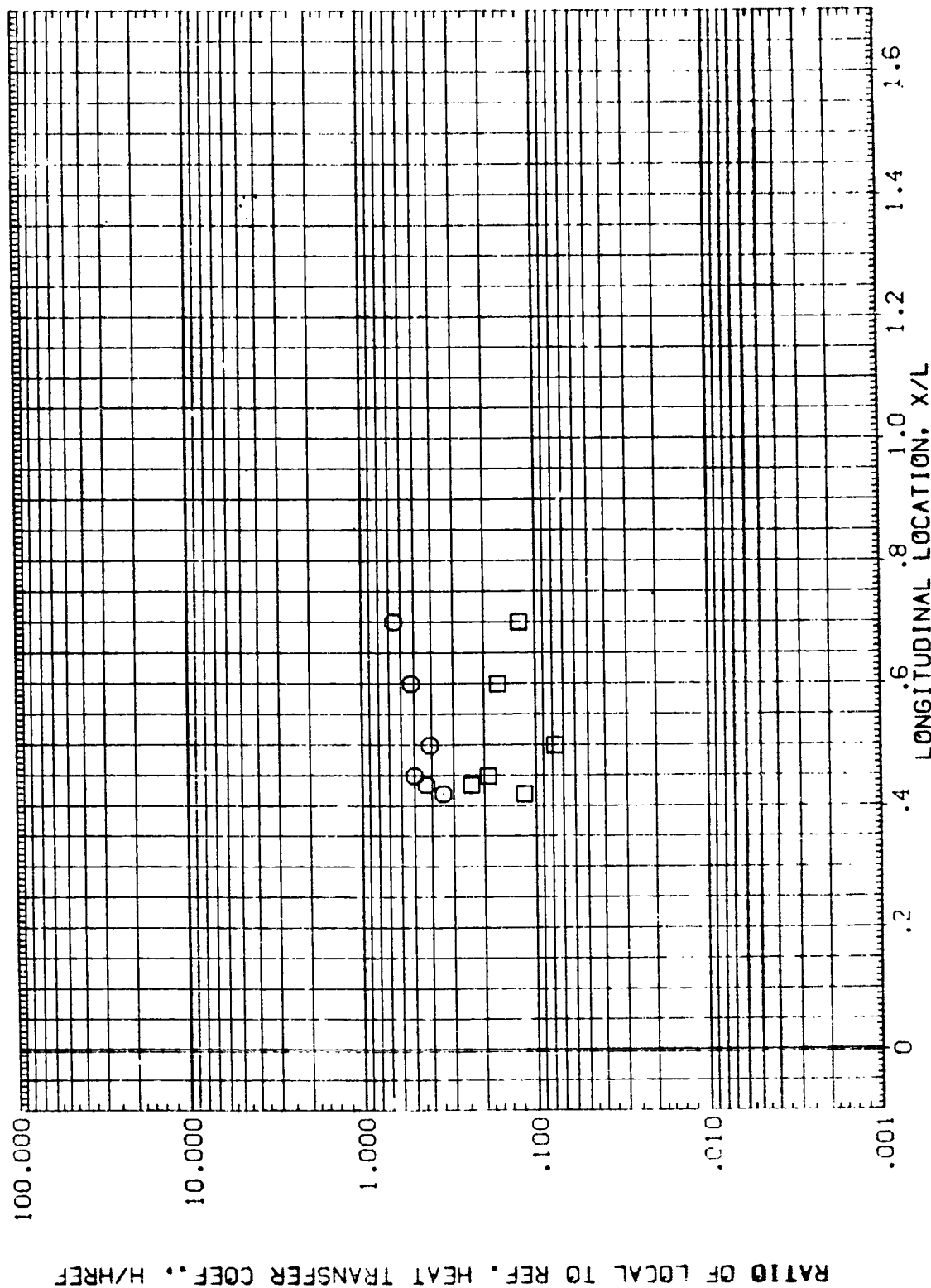


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 142.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	5.000
(RNBFO8)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP	.000	-5.000	5.000

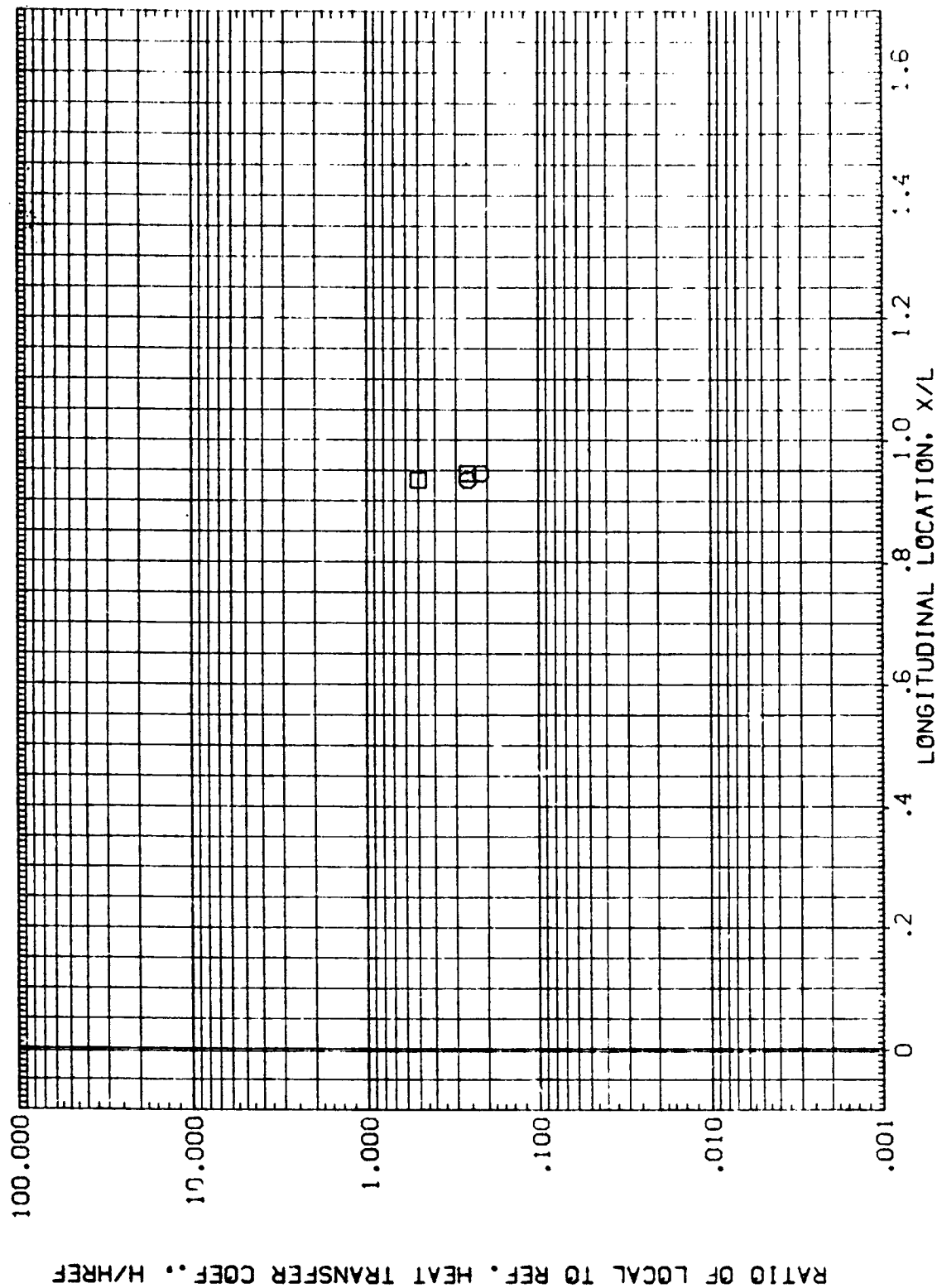



FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL: (RNBFO2) (RNBFO8) 

CONFIGURATION DESCRIPTION:  
 ARC3.5-211((1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 ARC3.5-211((1H48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA: .000 .000  
 BETA: .000 -5.000  
 RN/L: 5.000 5.000

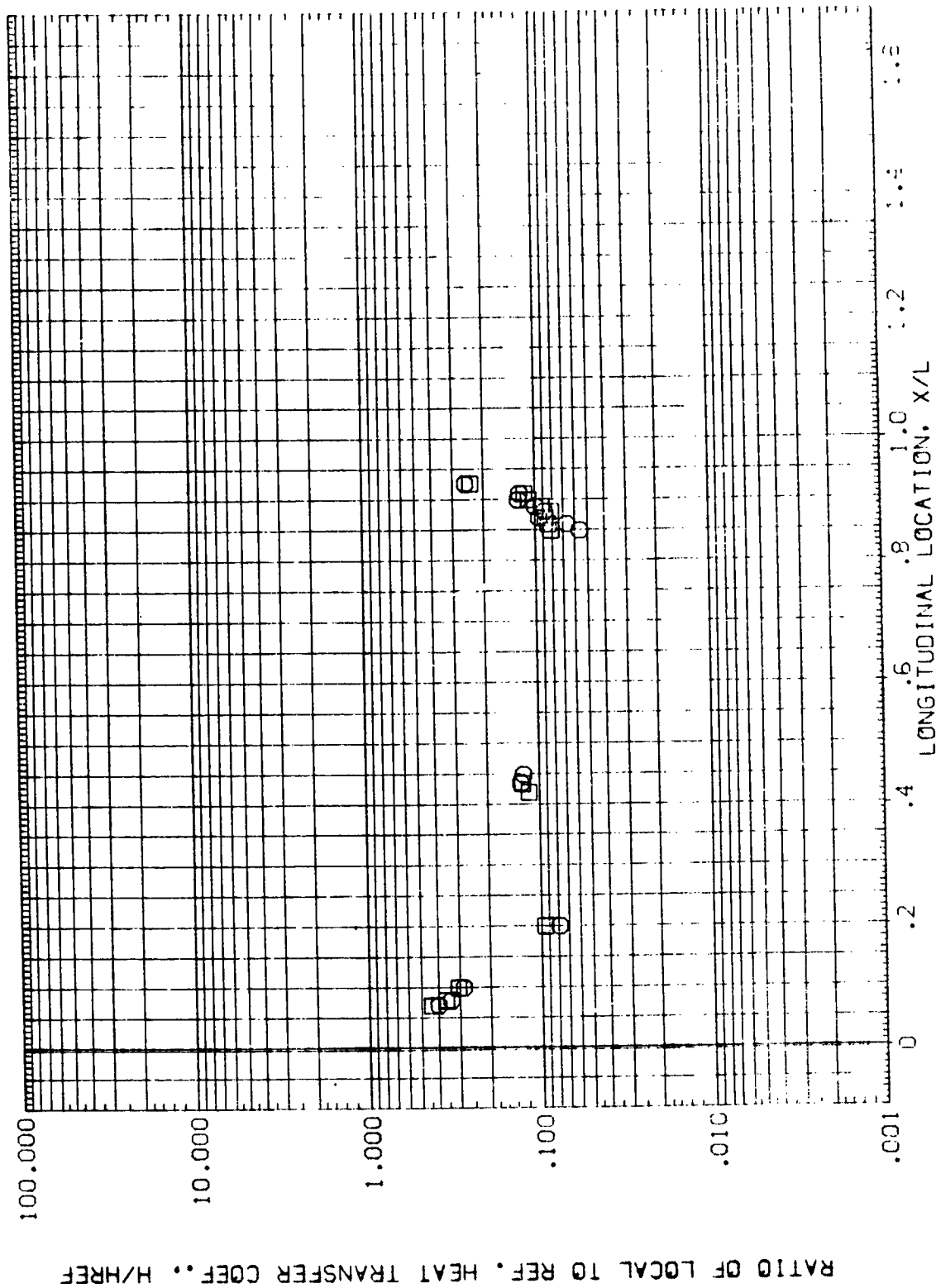


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAN/HT = .900 P=1 157.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (R1BF02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      5.000  
 (R1BF08)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

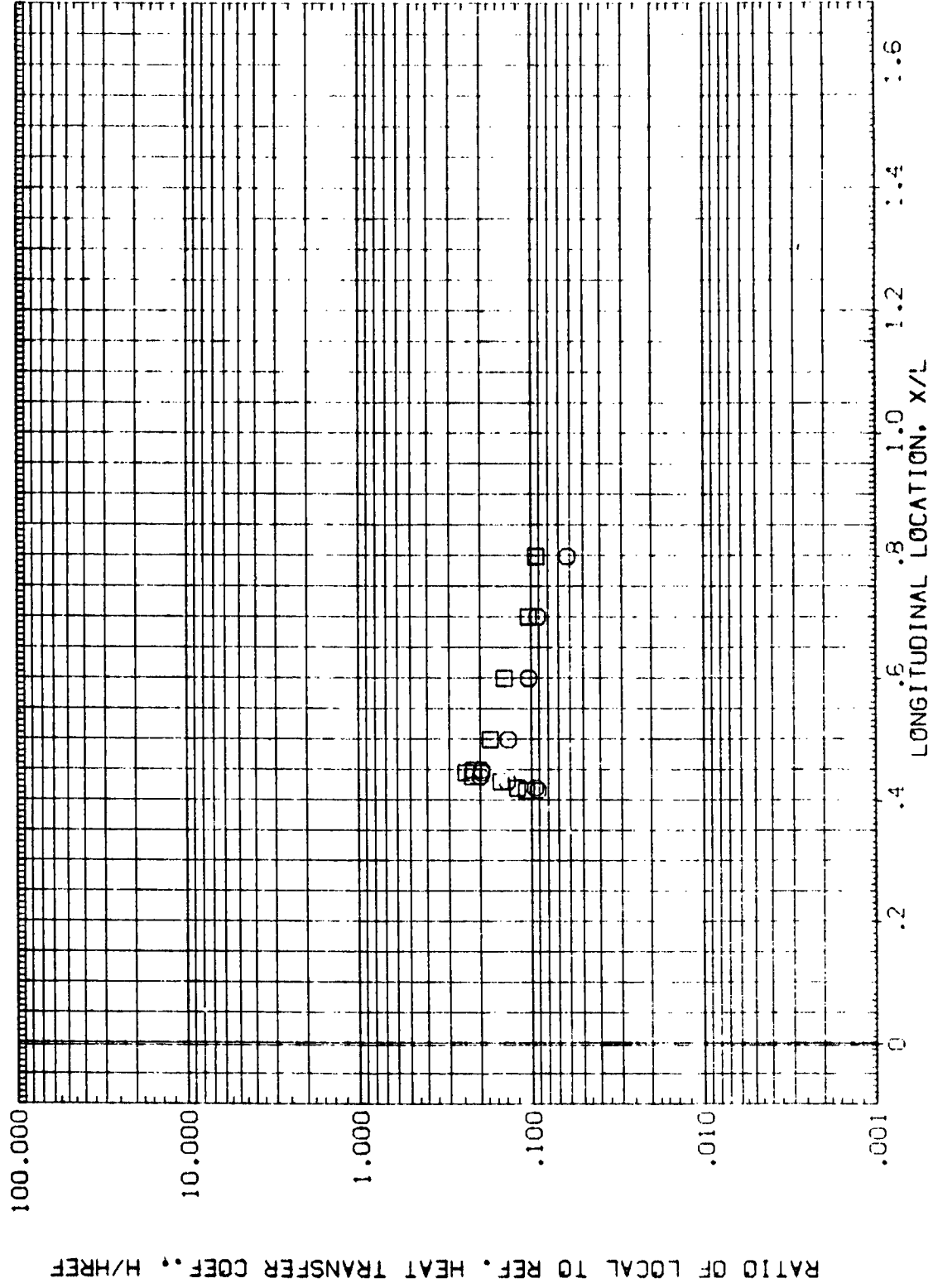


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HI = .900      PNT = 163.120

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(R1BF02)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    .000    .000    5.000

(R1BF08)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    .000    -5.000    5.000

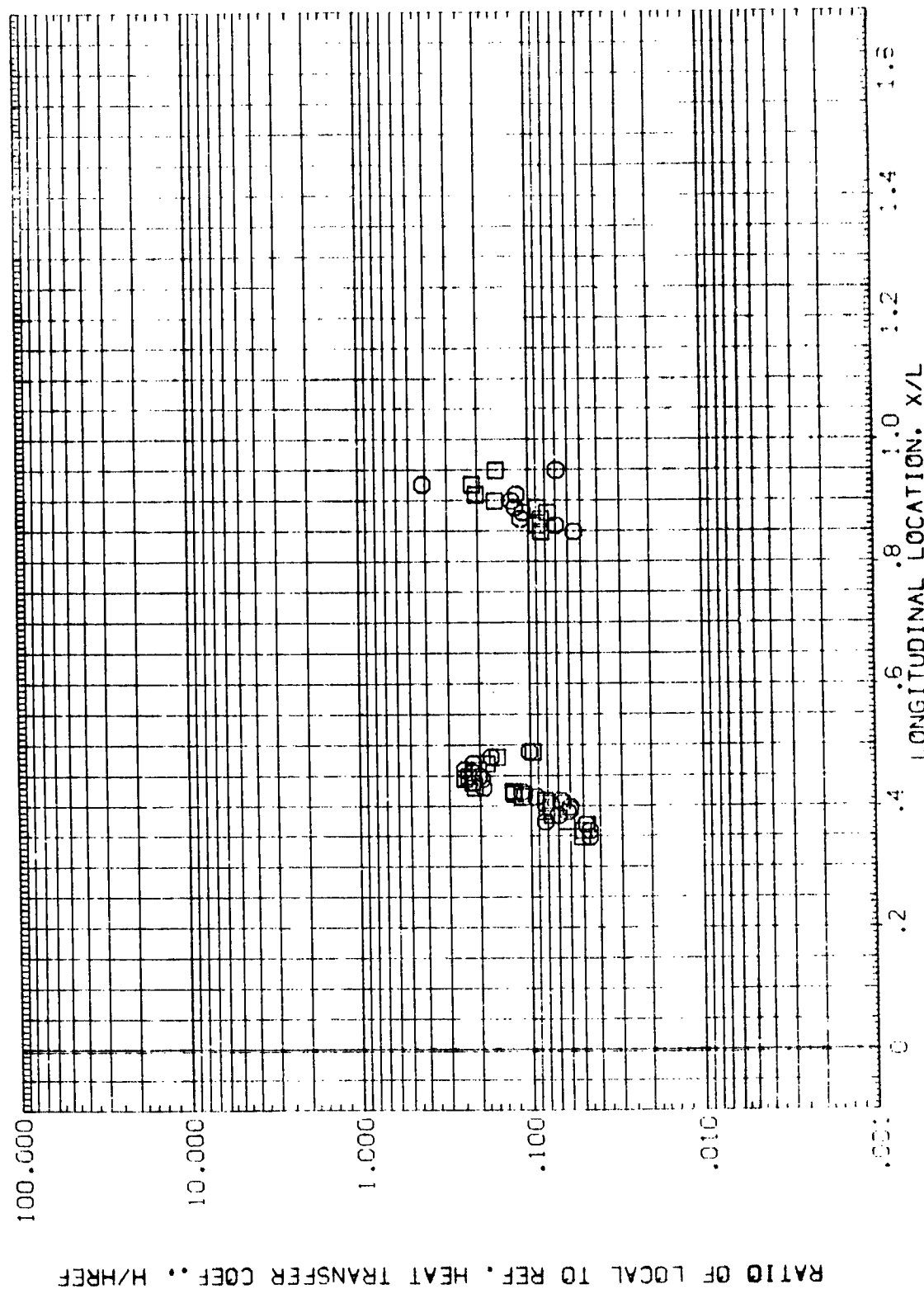


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.200     $h_{AW}/h_T = .200$      $Re_T = 168,000$



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO2)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      .000      .000      5.000  
 (RNBFO8)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

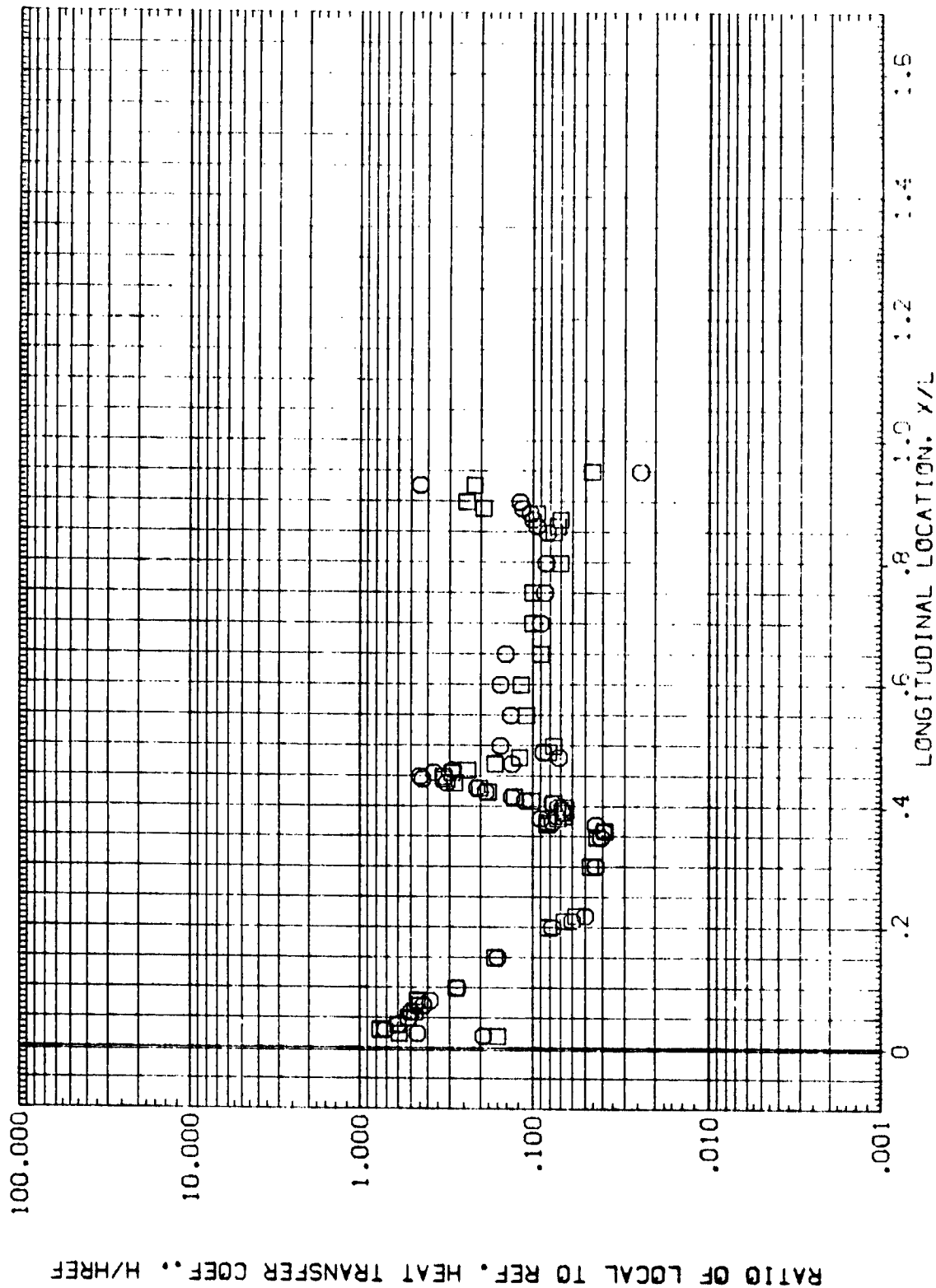


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .200      P/P0 = 100.000      PAGE 371

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB02) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNB08) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

ALPHA BETA RN/L  
 .000 .000 5.000  
 .000 -5.000 5.000

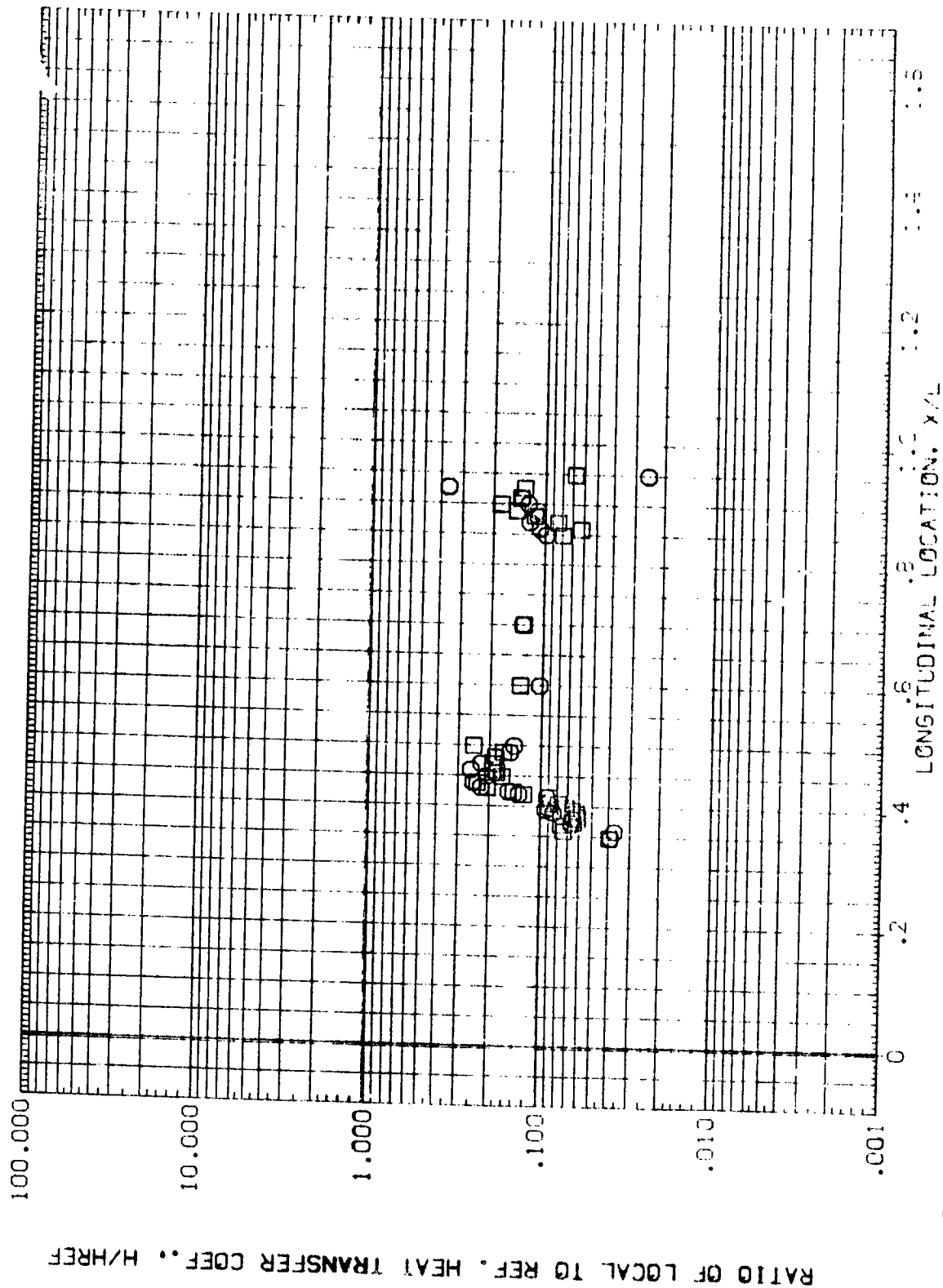


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 H<sub>1</sub>/H<sub>2</sub> = .970

191.107

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO2)      ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      5.000

(RNBFO8)      ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP      .000      -5.000      5.000

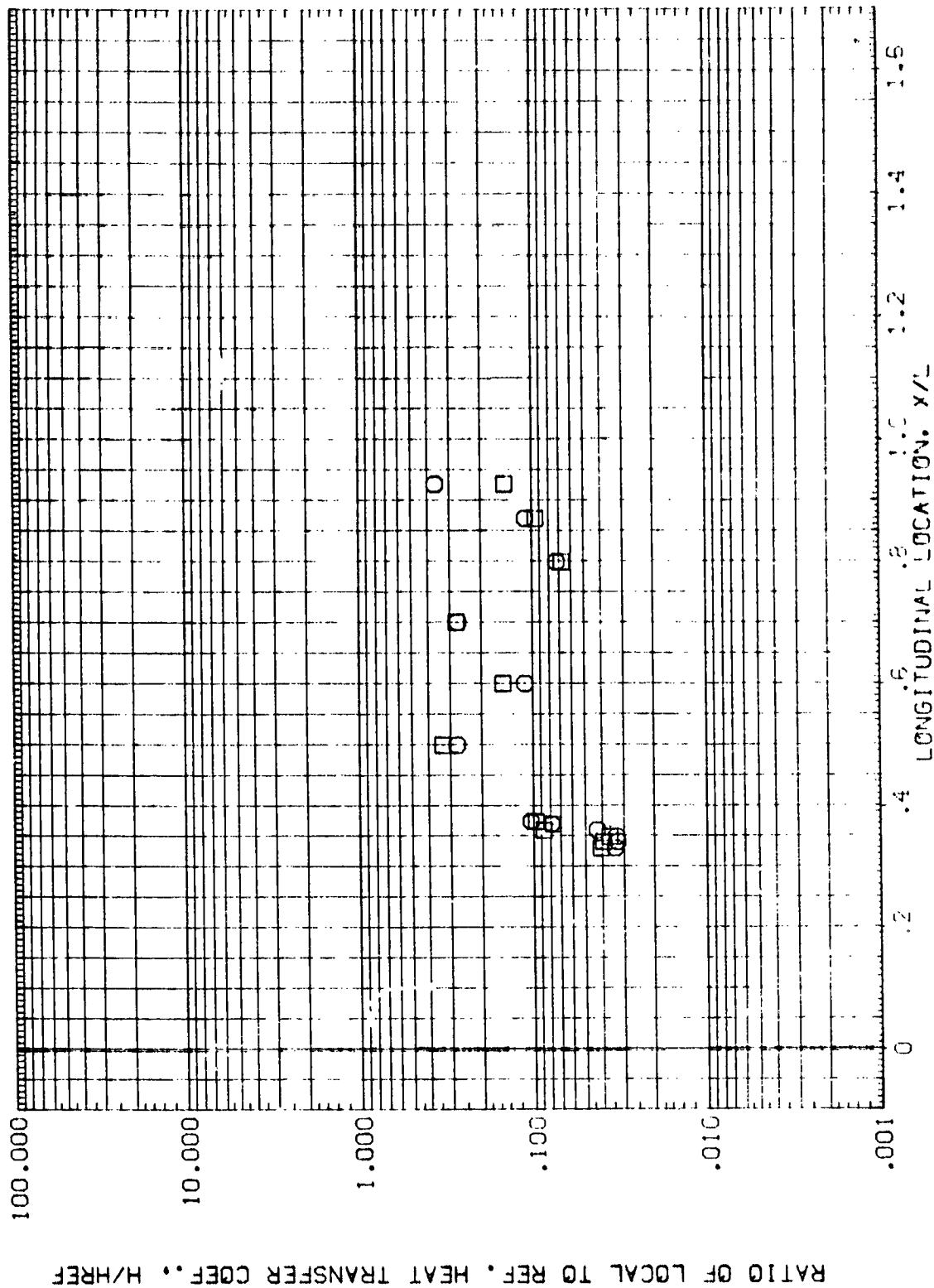


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(R)BF02) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
(R)BF06) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA R<sub>W</sub>/L  
.000 .000 5.000  
.000 -5.000 5.000

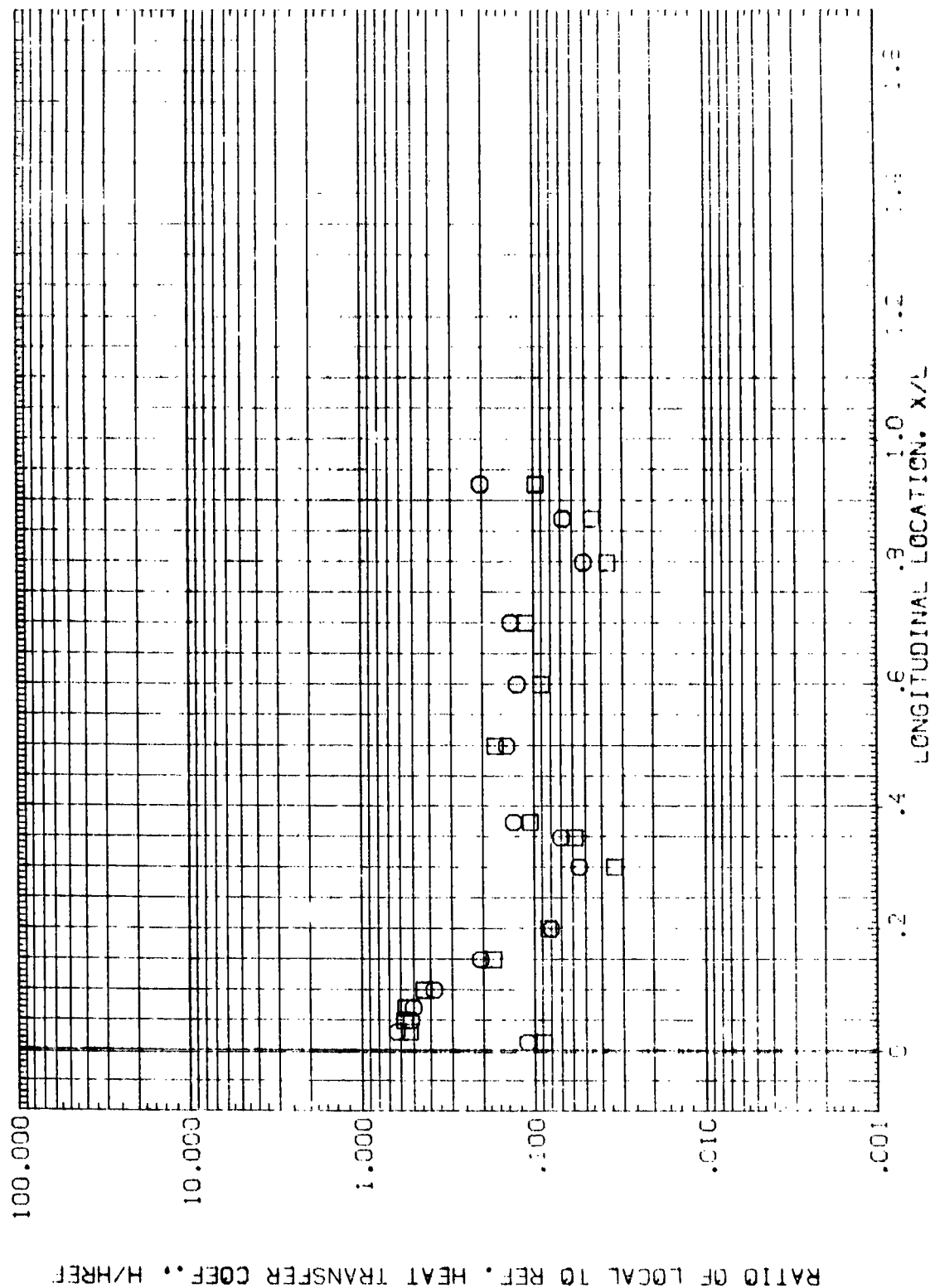




FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAWKITE = .900 F = 209.800

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO2)    
 (RNBFO8) 

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK   
 ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA RM/L   
 .000 .000 5.000   
 .000 -5.000 5.000

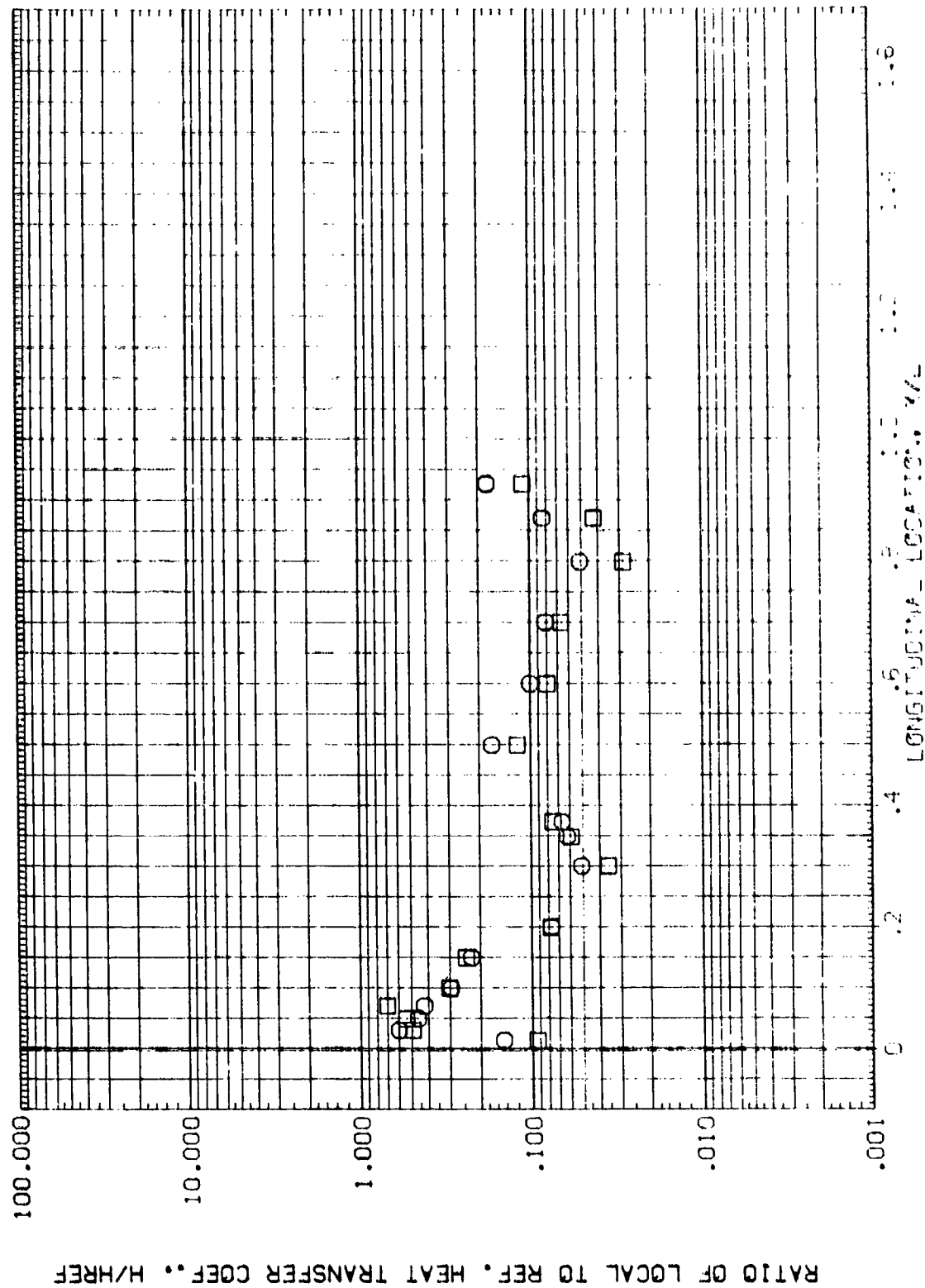


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.000 HAW/HI = .000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFC3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      EXT TANK      -5.000      .000      5.000  
 (RNBFC5)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      -5.000      .000      5.000

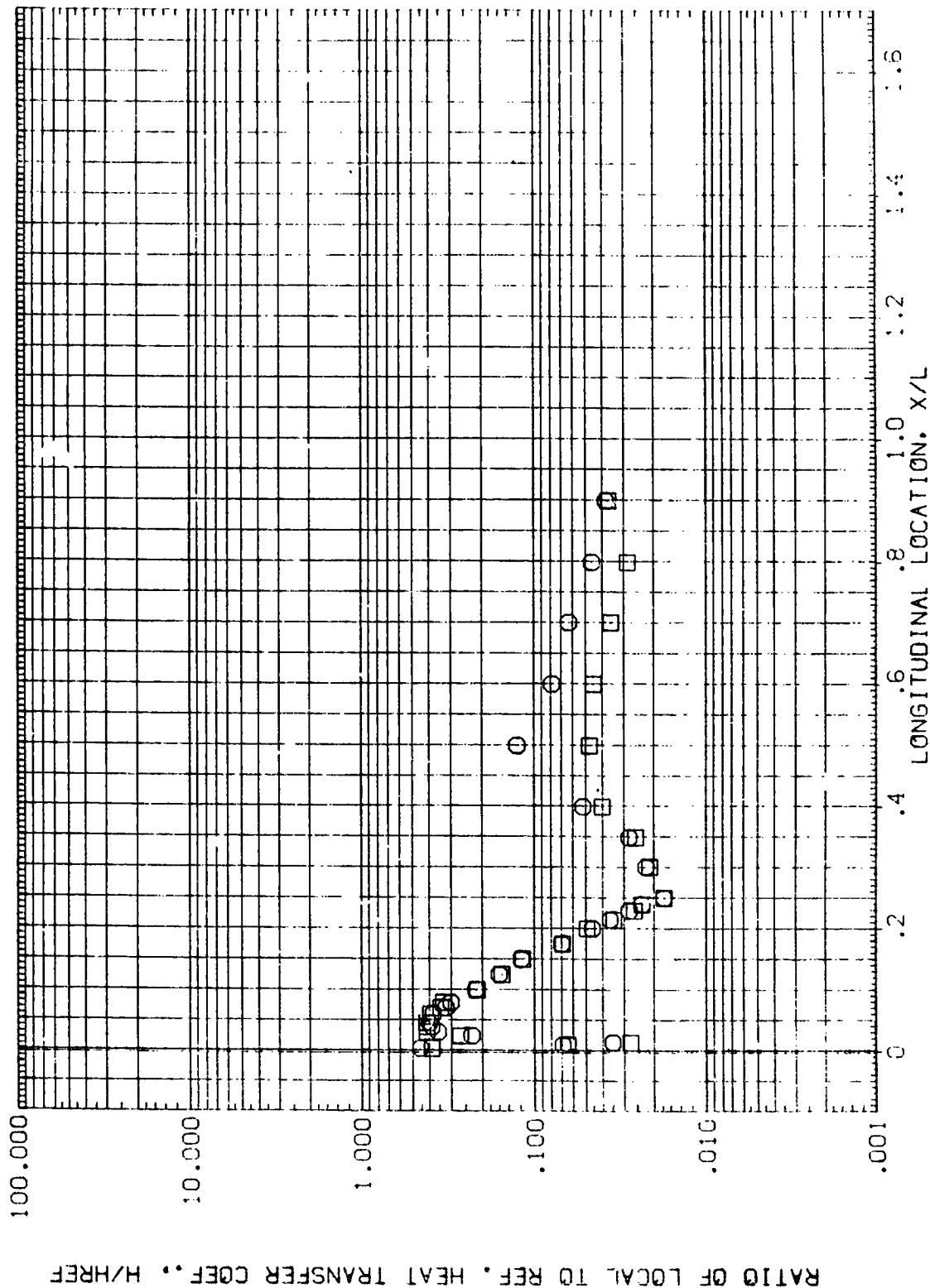


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = .000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      EXT TANK      -5.000      .000      5.000  
 (RNBFO9)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      -5.000      -5.000      5.000

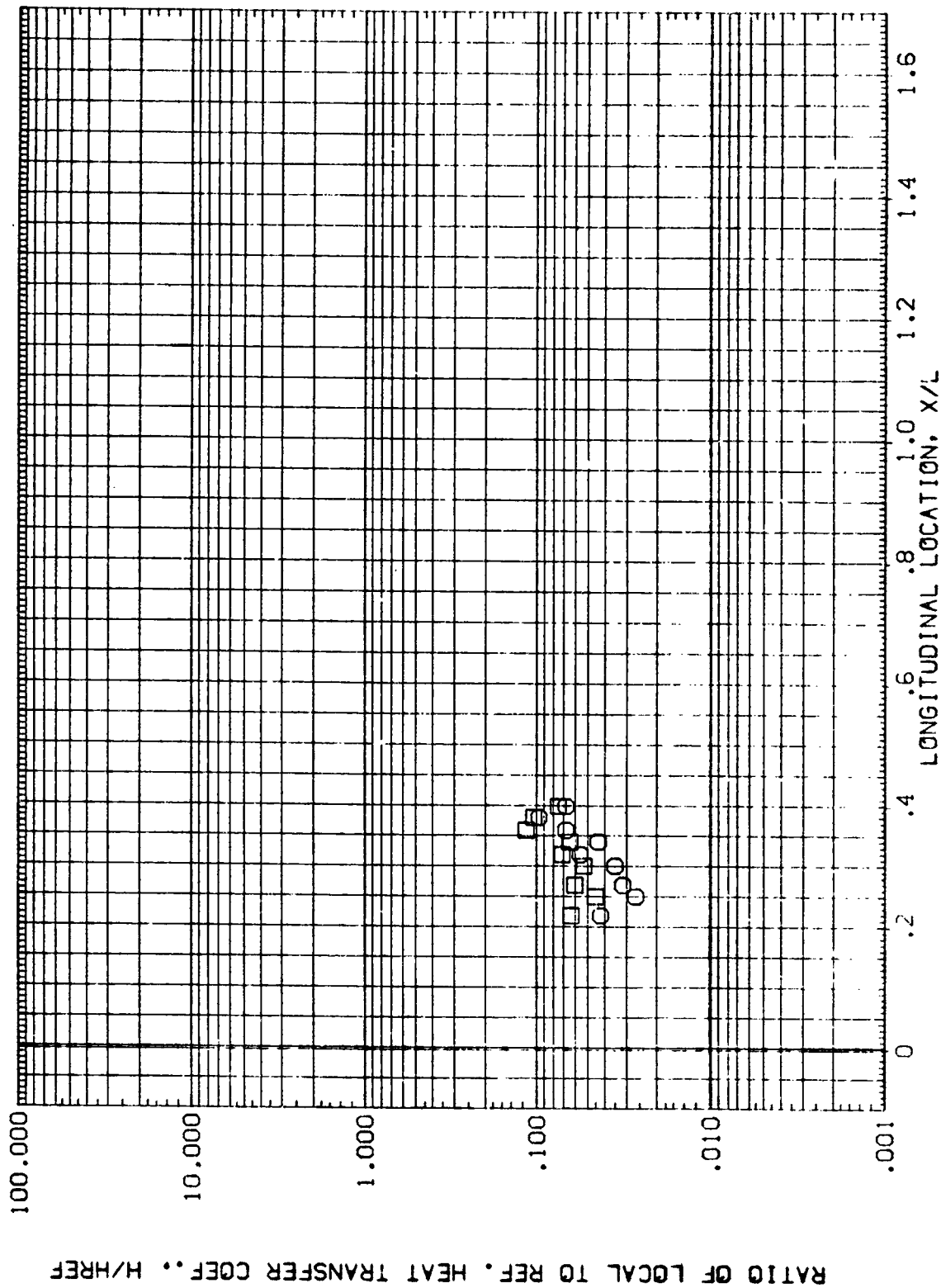


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.306       $HAW/H^2 = .950$        $Pr = 55.000$

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      EXT TANK      -5.000      .000      5.000  
 (RNBFO9)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

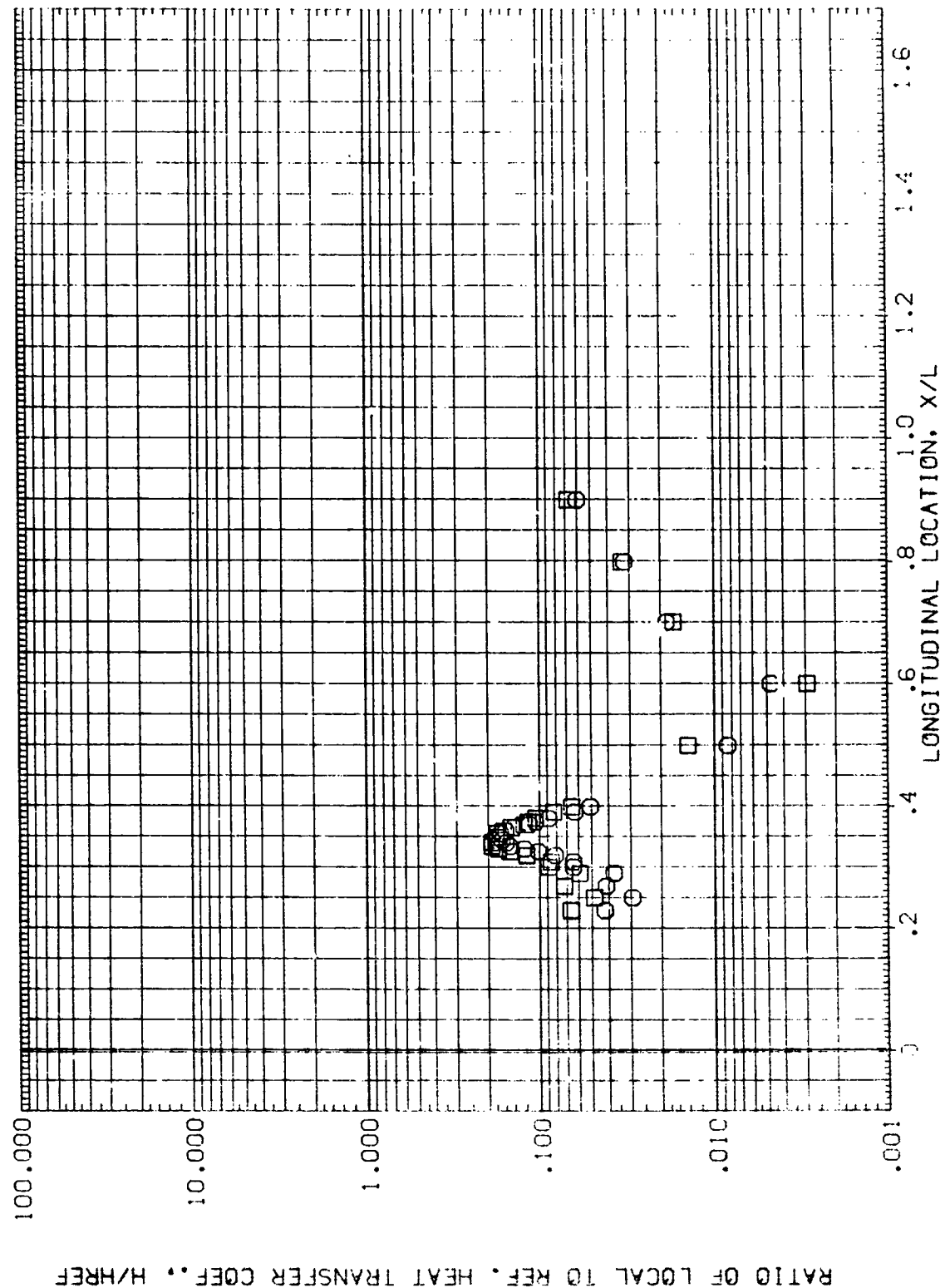


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .300      PHI = 67.500



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      EXT TANK      -5.000      .000      5.000  
 (RNBFO9)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      -5.000      -5.000      5.000

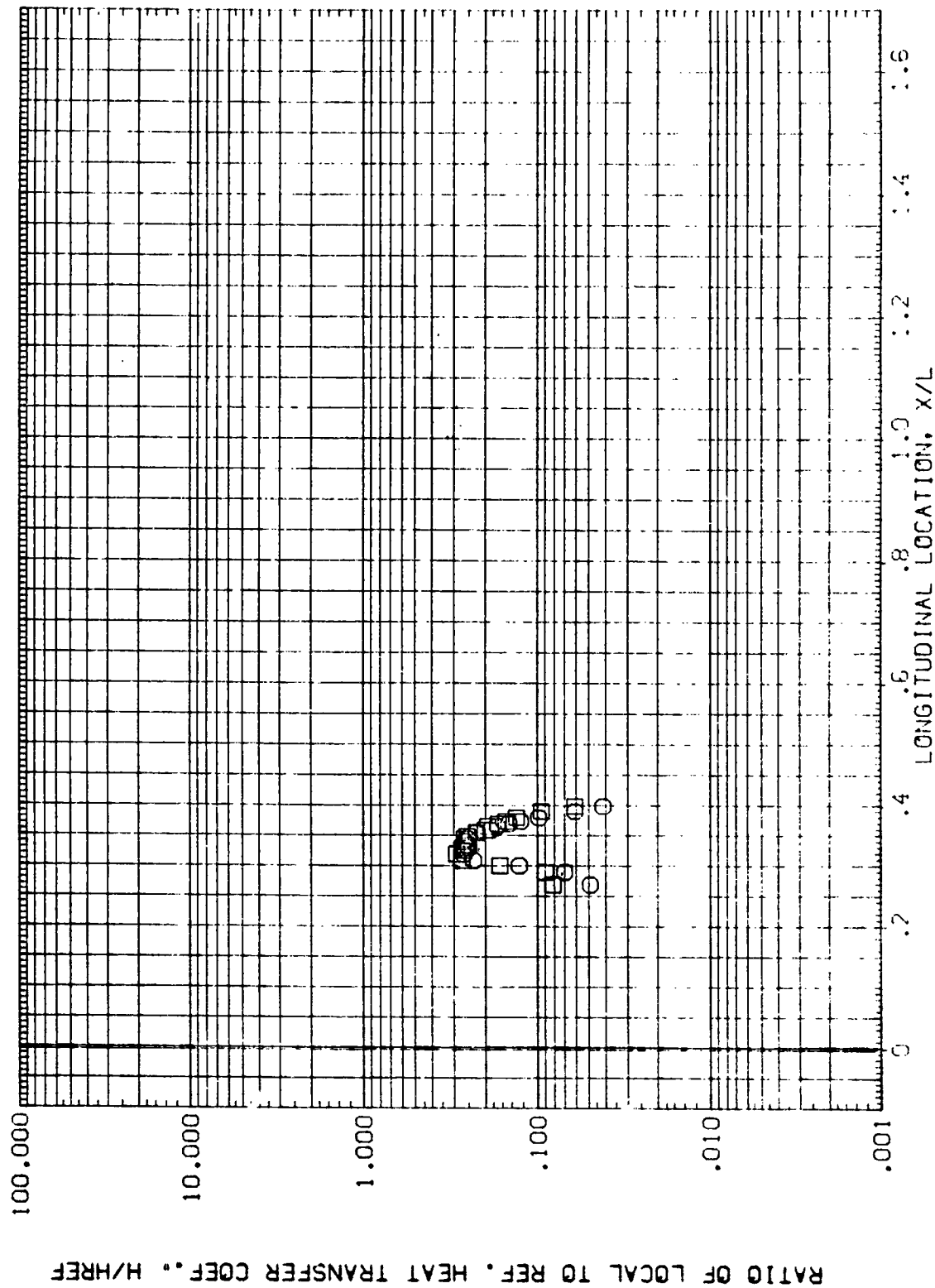


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAWAII      7/8.0000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (R15C03)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    EXT TANK    -5.000    .000    5.000  
 (R15C09)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    EXT TANK    -5.000    -5.000    5.000

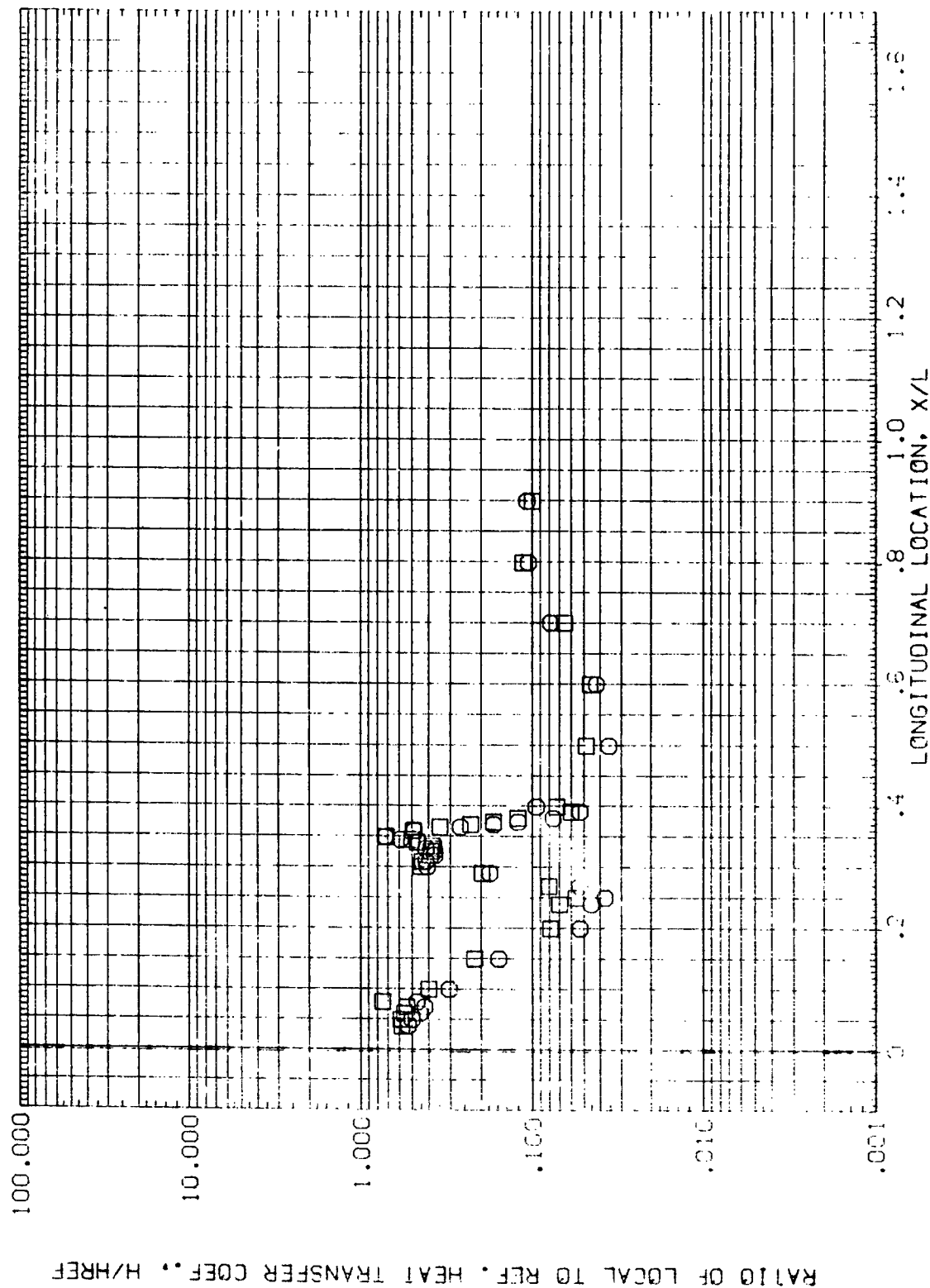


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .300    TOL = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO3)      ARC3.5-211(1448)OTS/NIPPLE/P/TRIP(0+S)      -5.000      .000      5.000  
 (RNBFO9)      ARC3.5-211(1448)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

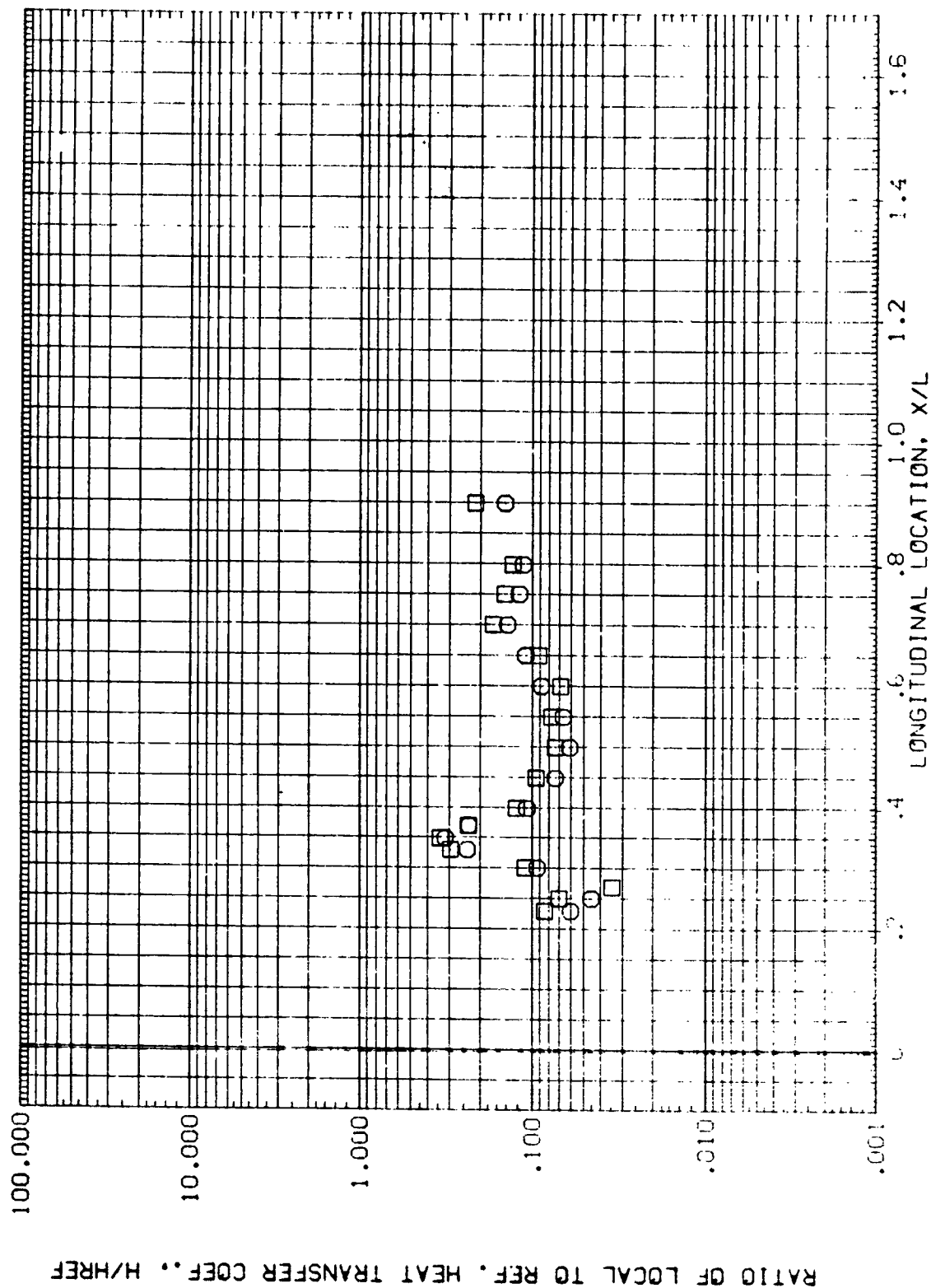


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO3)  
(RNBFO9)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA RN/L  
-5.000 .000 5.000  
-5.000 -5.000 5.000

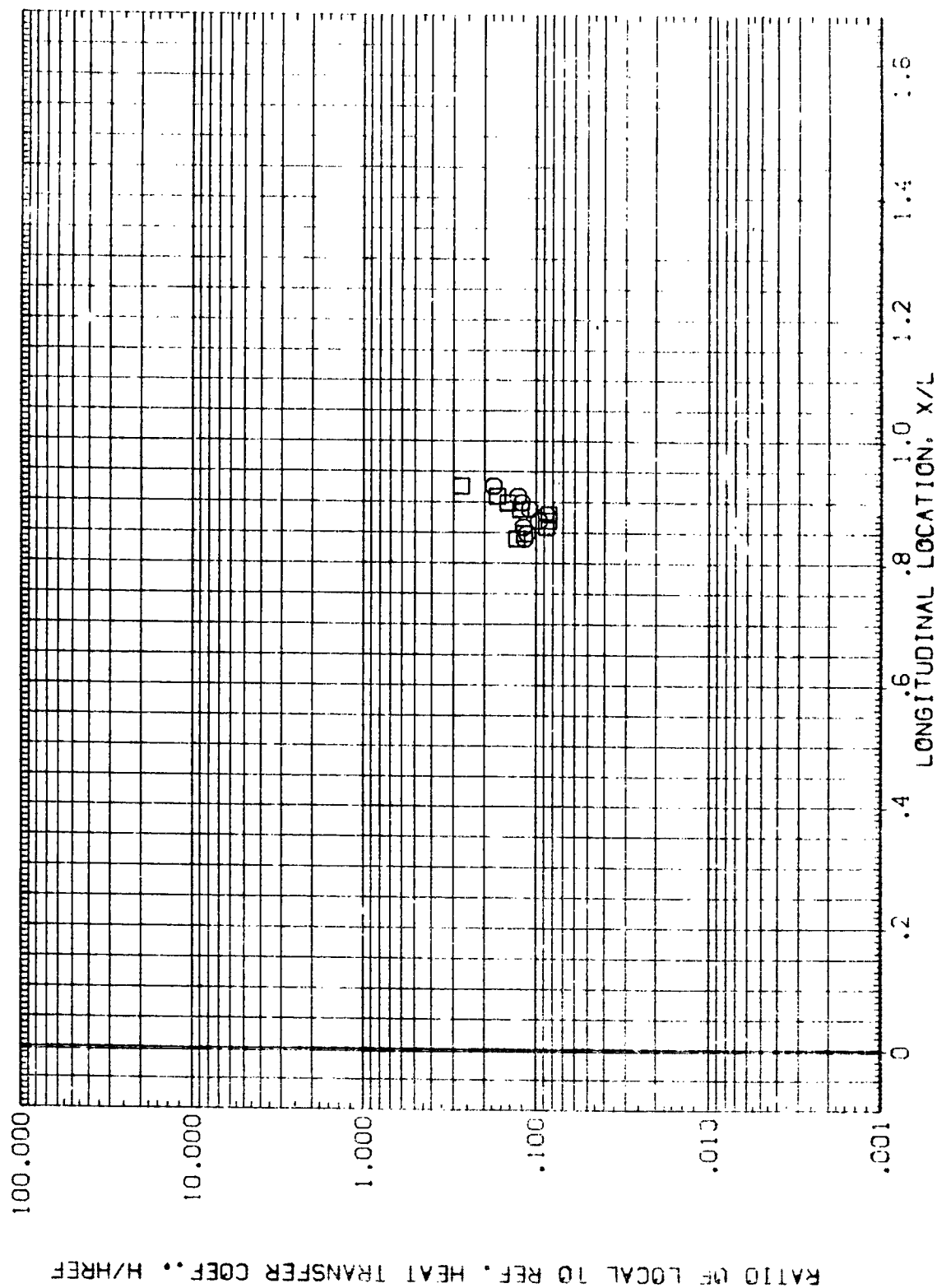


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P-HI = 125.400

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DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RM/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

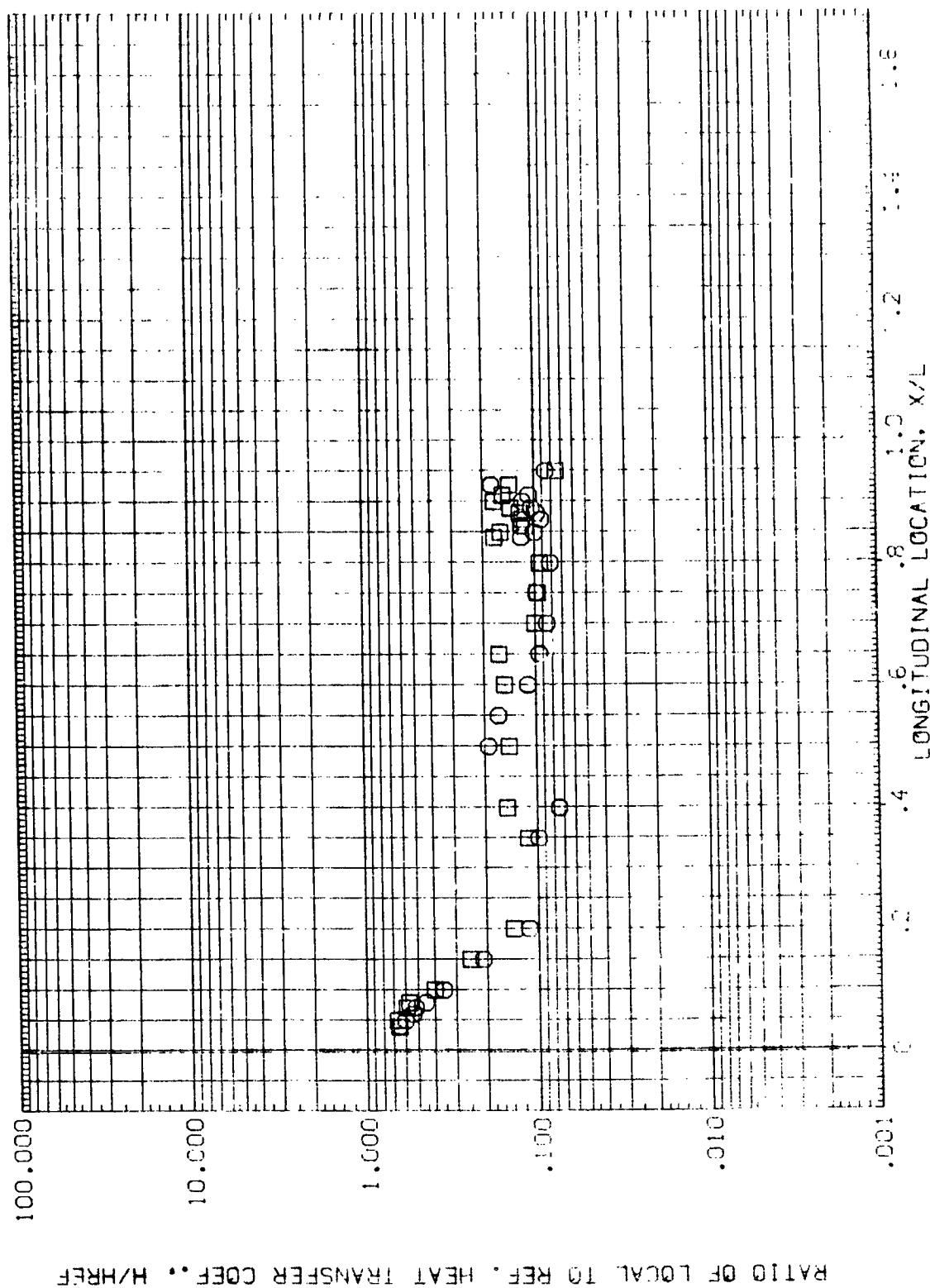


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

WATER = 5.000      WAVELENGTH = 0.000      REF = 135.000      PAGE 084

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      -5.000      .000      5.000

(RNBFO9)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

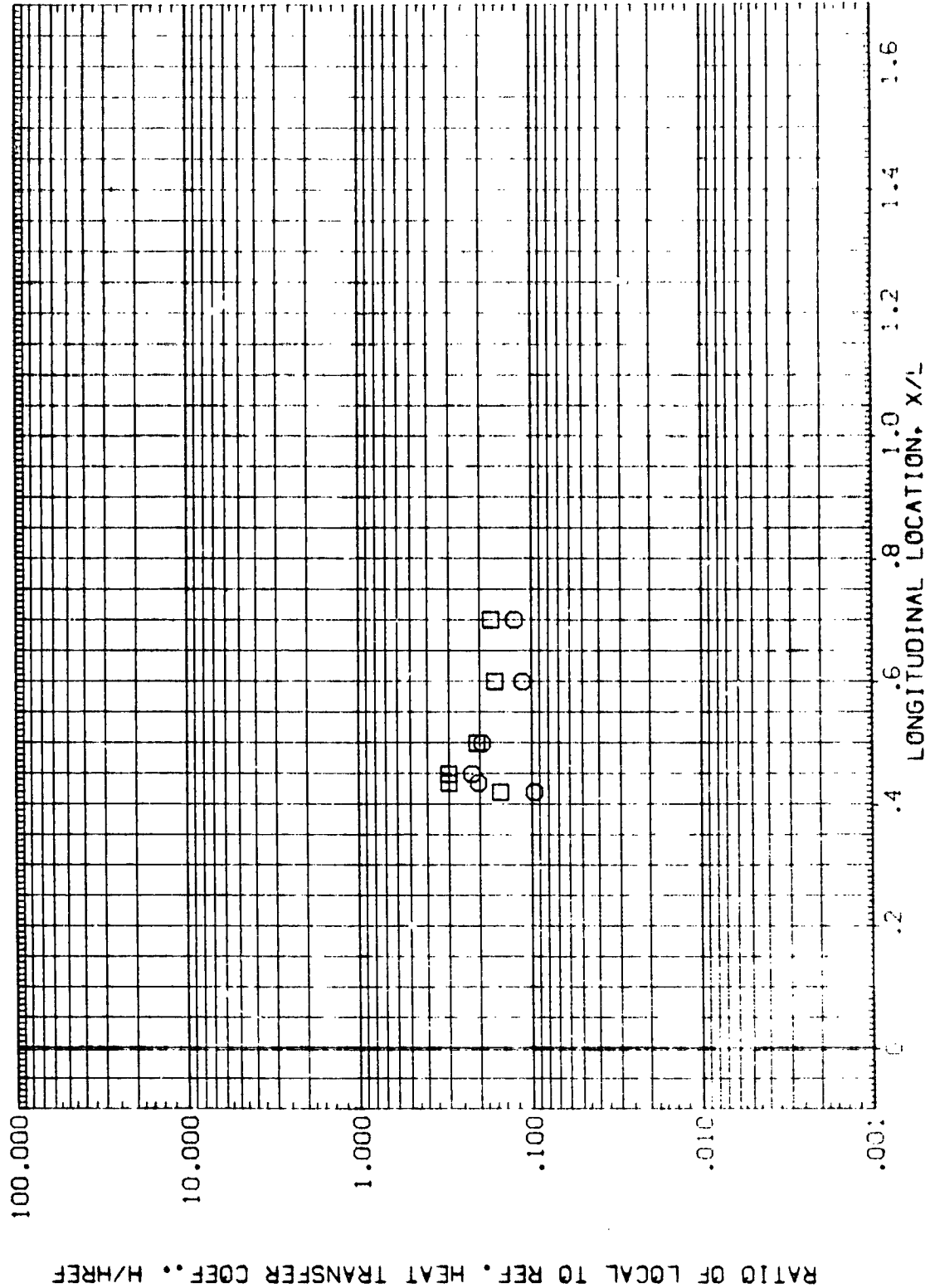


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      P-H = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO3) ☐ ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFO3) ☐ ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 -5.000 5.000

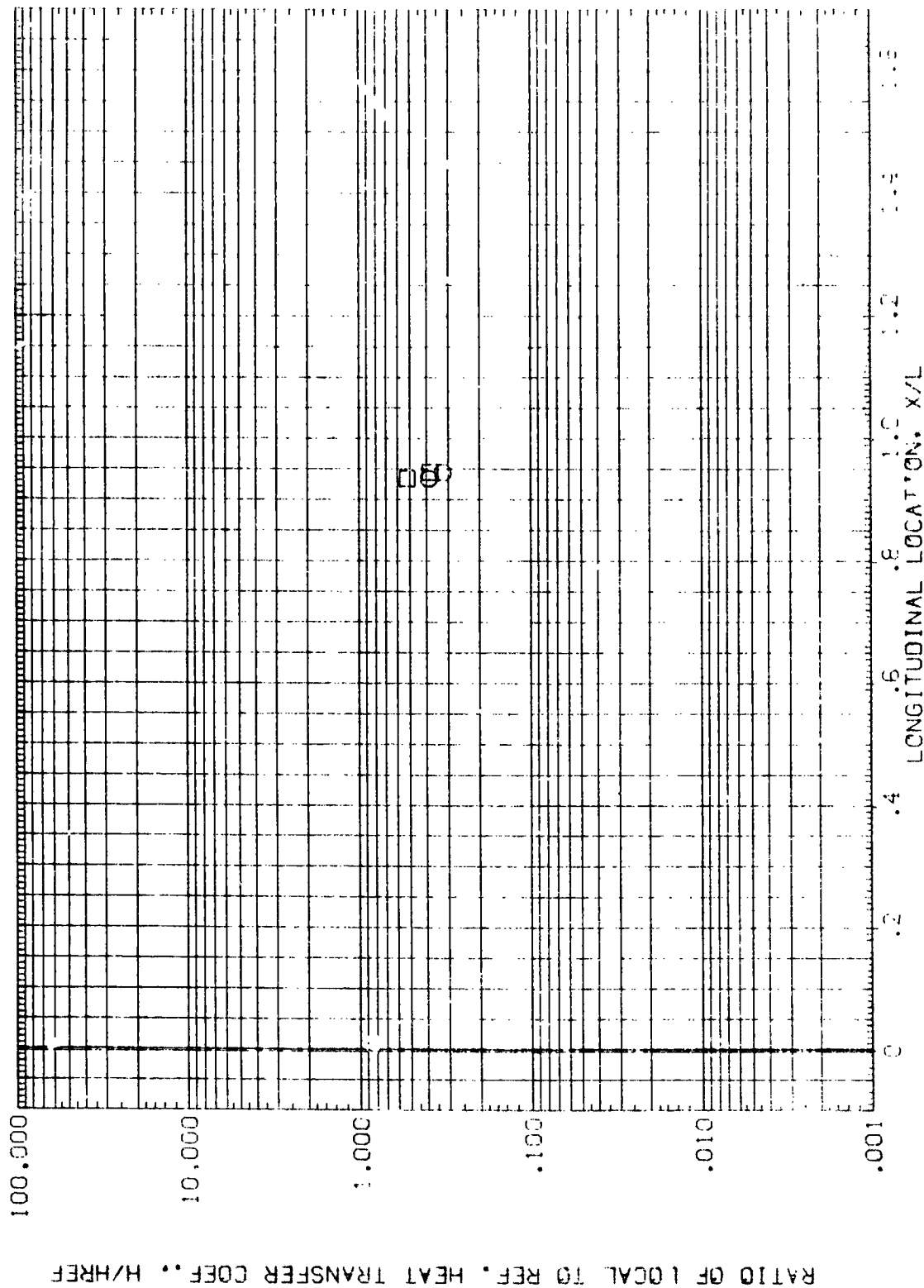


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW. HT = .800  $\phi$  = 154.78G

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DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (R4BF03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      -5.000      .000      5.000  
 (R4BF09)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

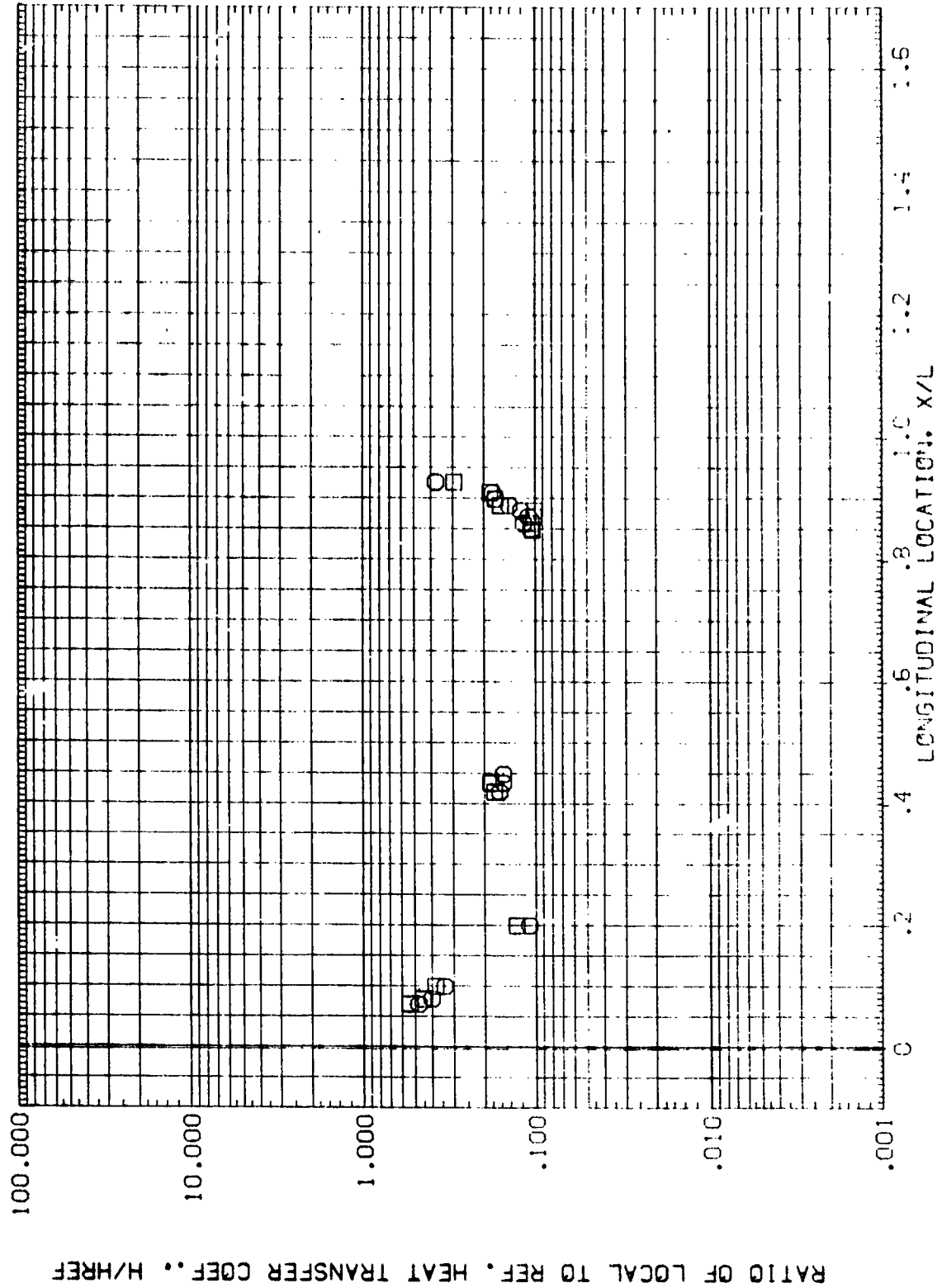


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNGF03) ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
(RNGF09) ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP EXT TANK

RN/L

BETA

ALPHA

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

EXT TANK

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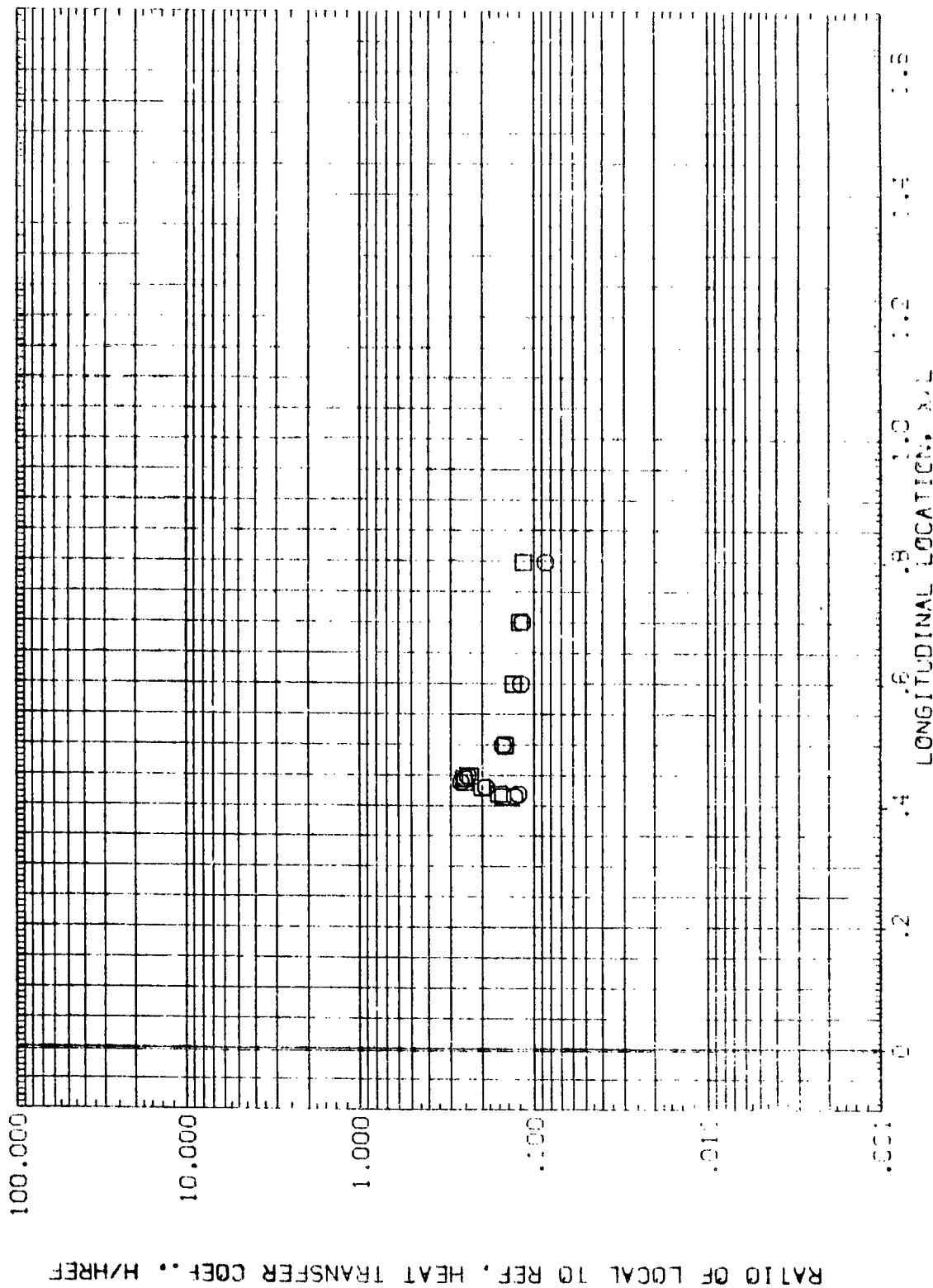


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAWKITE = .900 PHI = 163.120

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RV/L  
 (RMBF03) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK -5.000 .000 5.000  
 (RMBF09) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK -5.000 -5.000 5.000

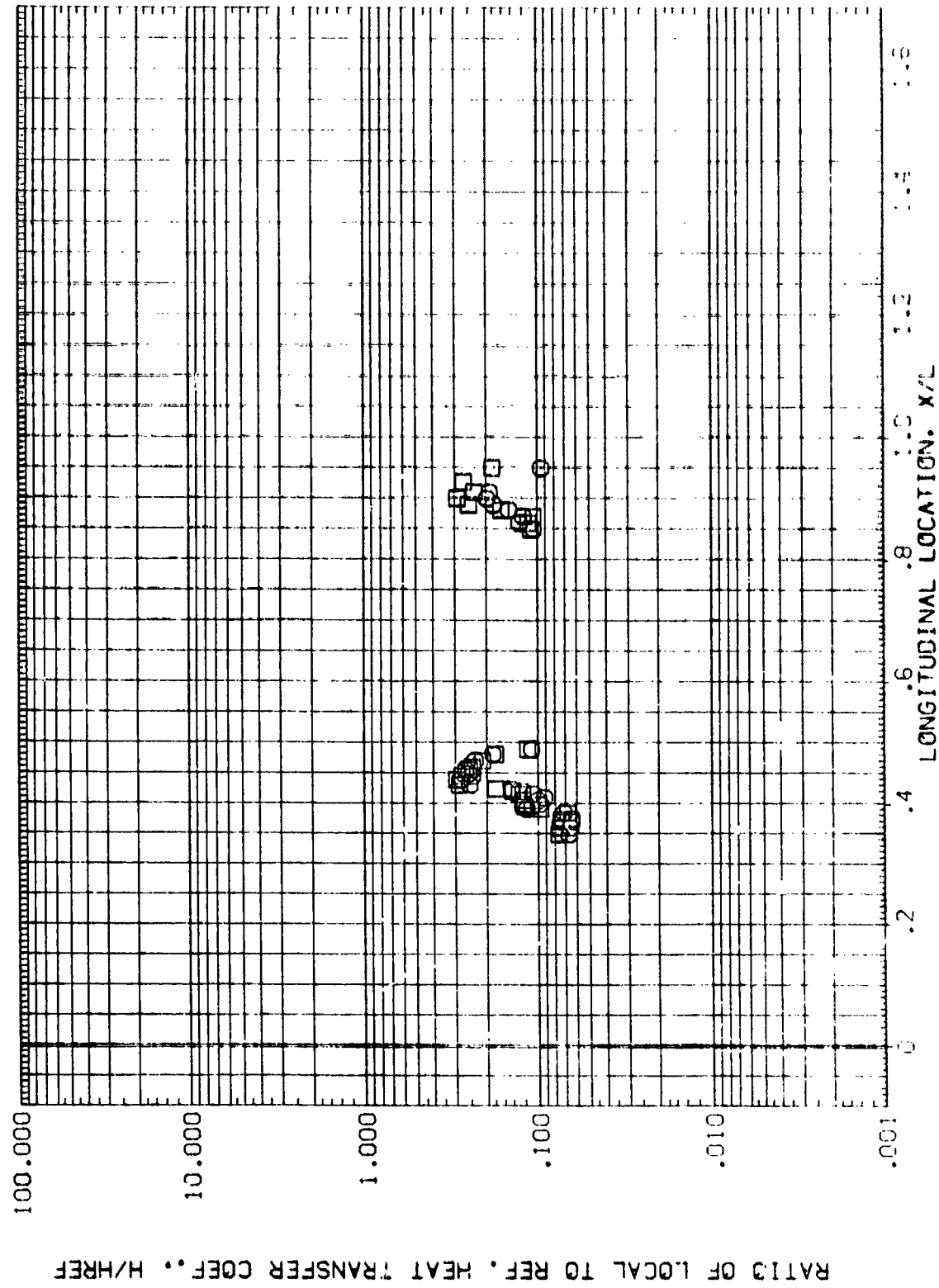


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.700 HAW/HT = .900 PH1 = 168.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFC03) APC3.5-211(IH48)OTS/NIPPLE/P/IR(.0+S) EXT TANK  
(RNBFC03) ARC3.5-211(IH48)OTS/NIPPLE/P/IR(.0+S) EXT TANK

ALPHA BETA RN/L

-5.000 .000 5.000  
-5.000 -5.000 5.000

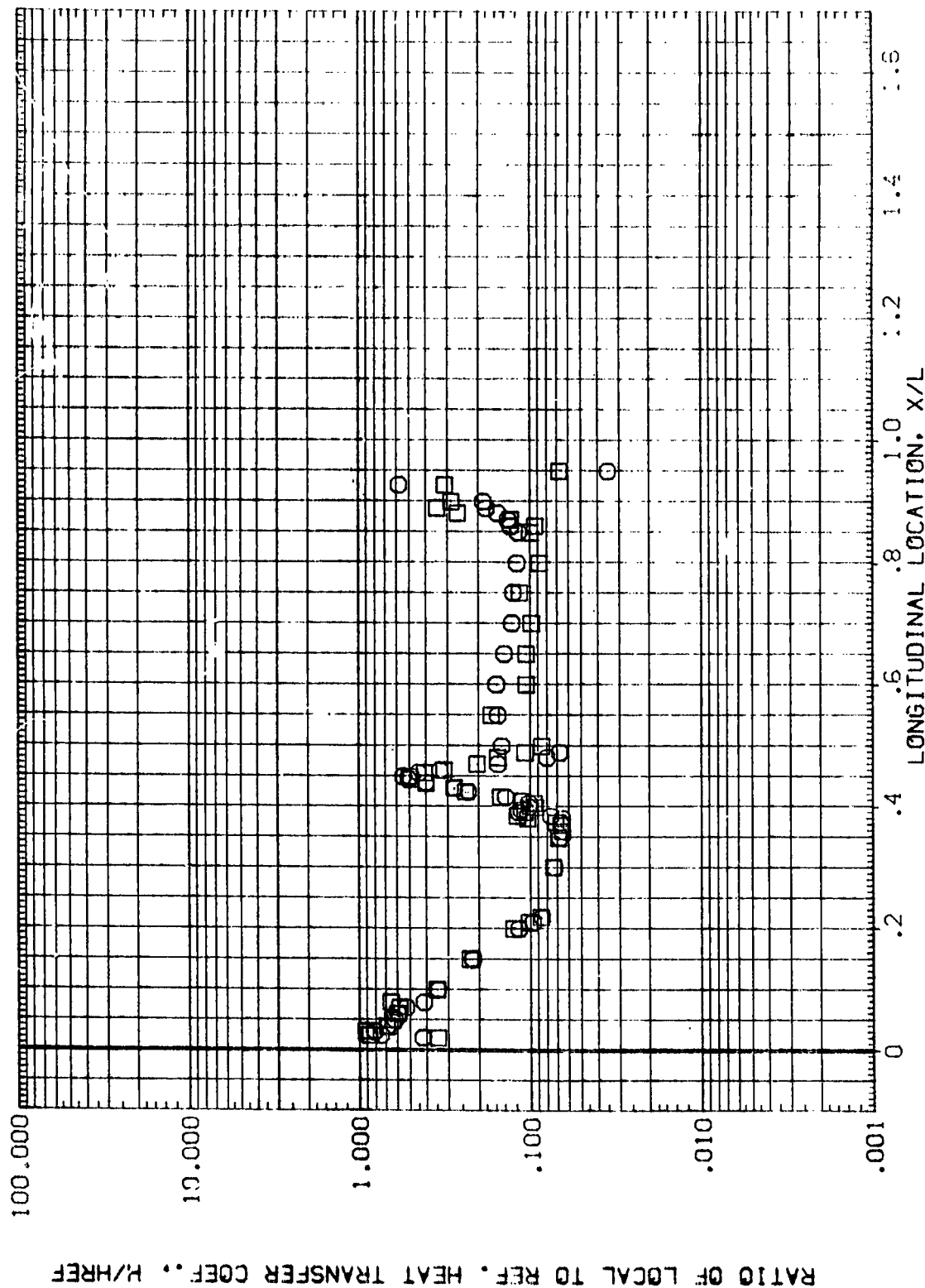


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO3)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      -5.000      .000      5.000  
 (RNBFO9)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

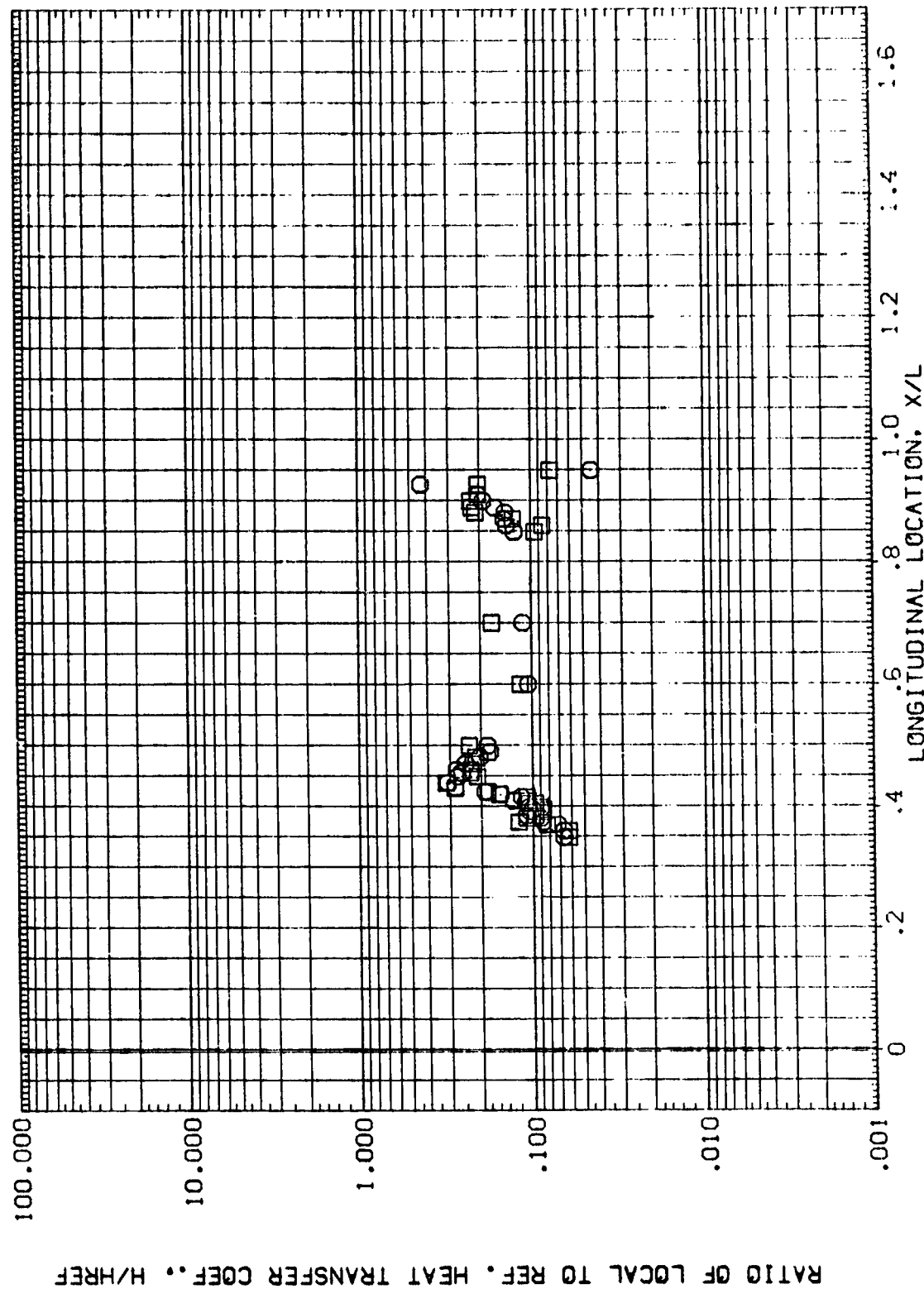


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 191.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO3) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFO9) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 -5.000 5.000

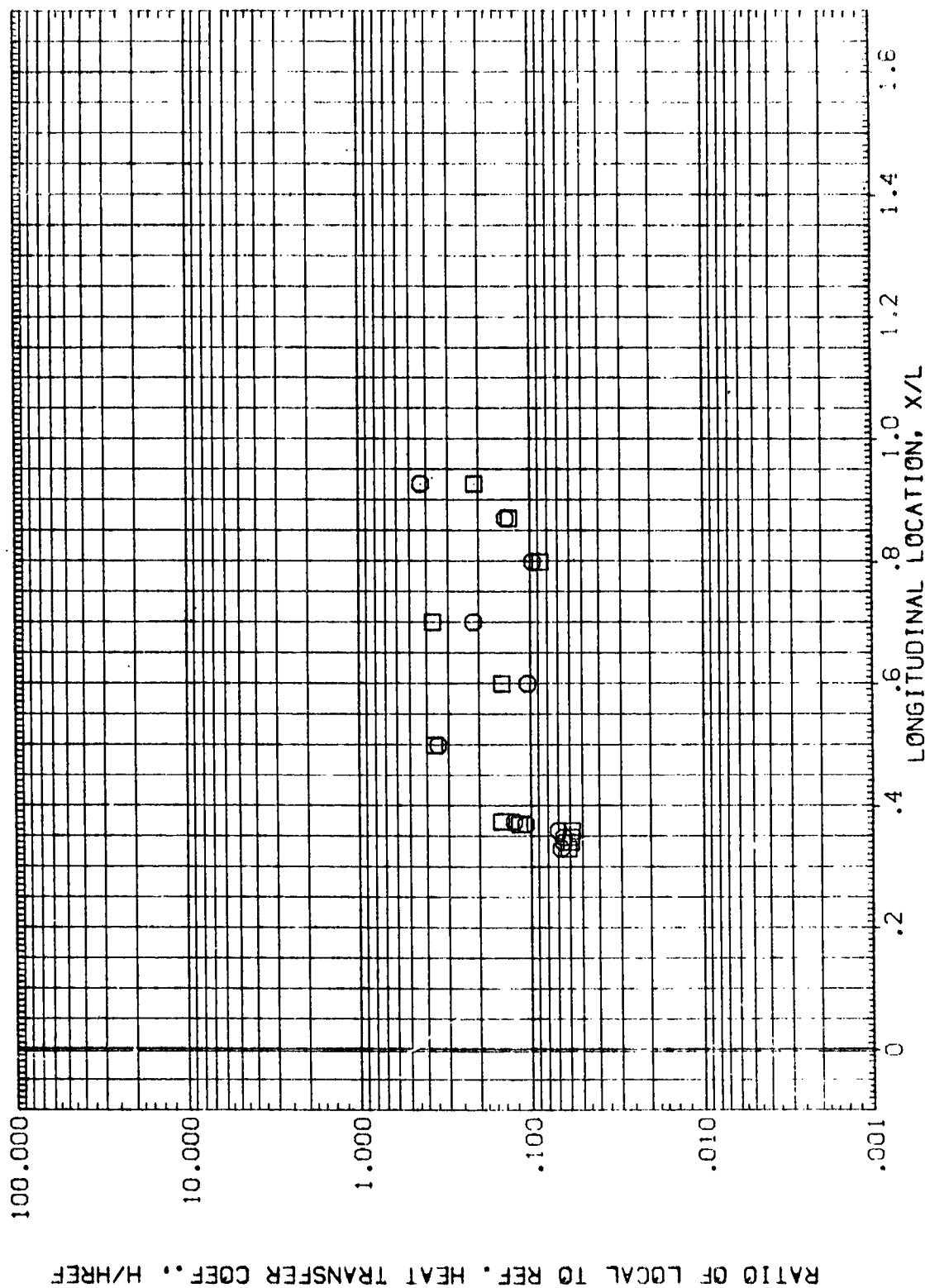


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 147.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNF03)      ARC3.5-211(I48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000  
 (RNF09)      ARC3.5-211(I48)OTS/NIPPLE/P/TRIP      -5.000      -5.000      5.000

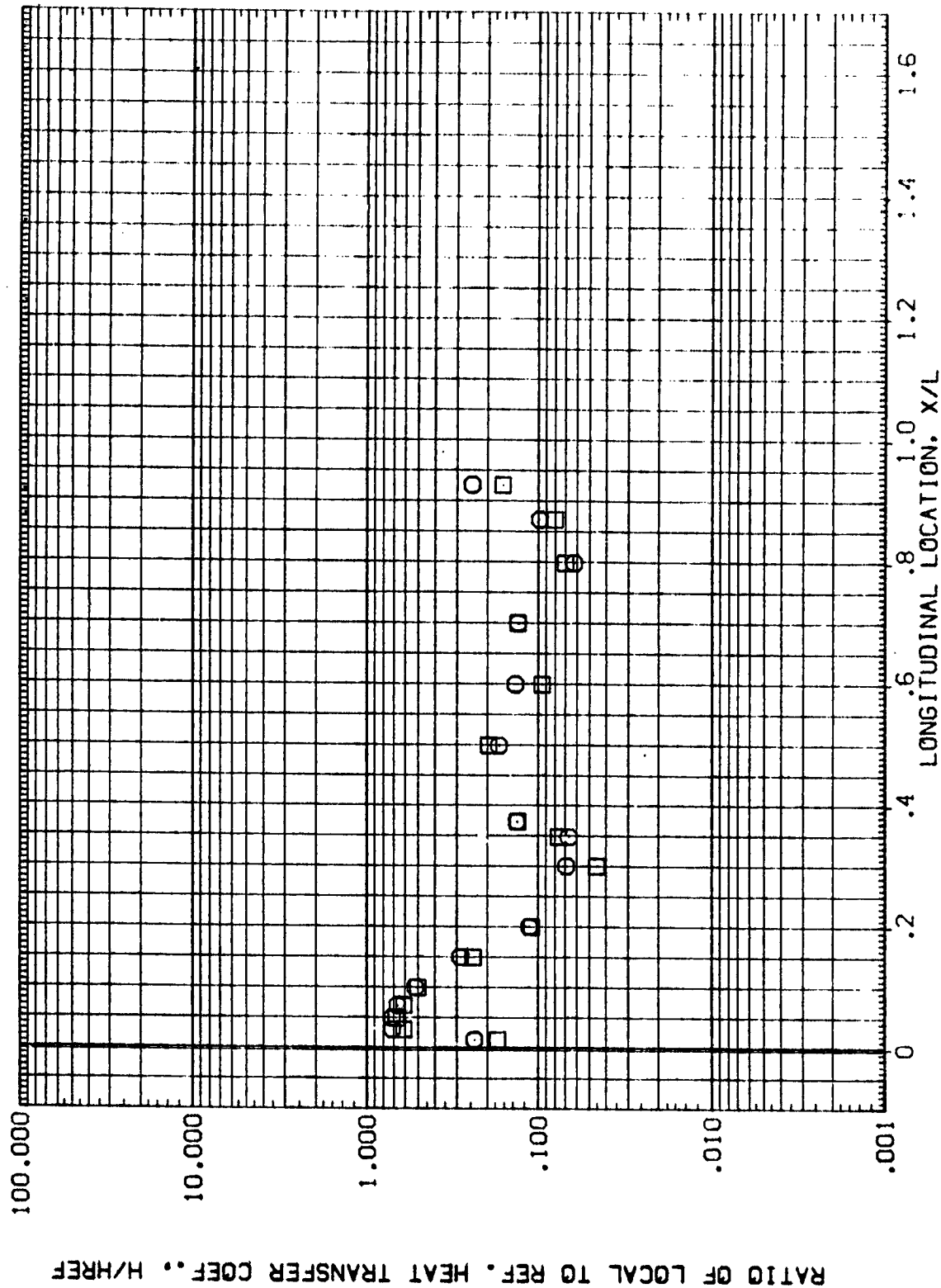


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(R09F03)  $\square$   
(R09F09)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA RN/L  
-5.000 .000 5.000  
-5.000 -5.000 5.000

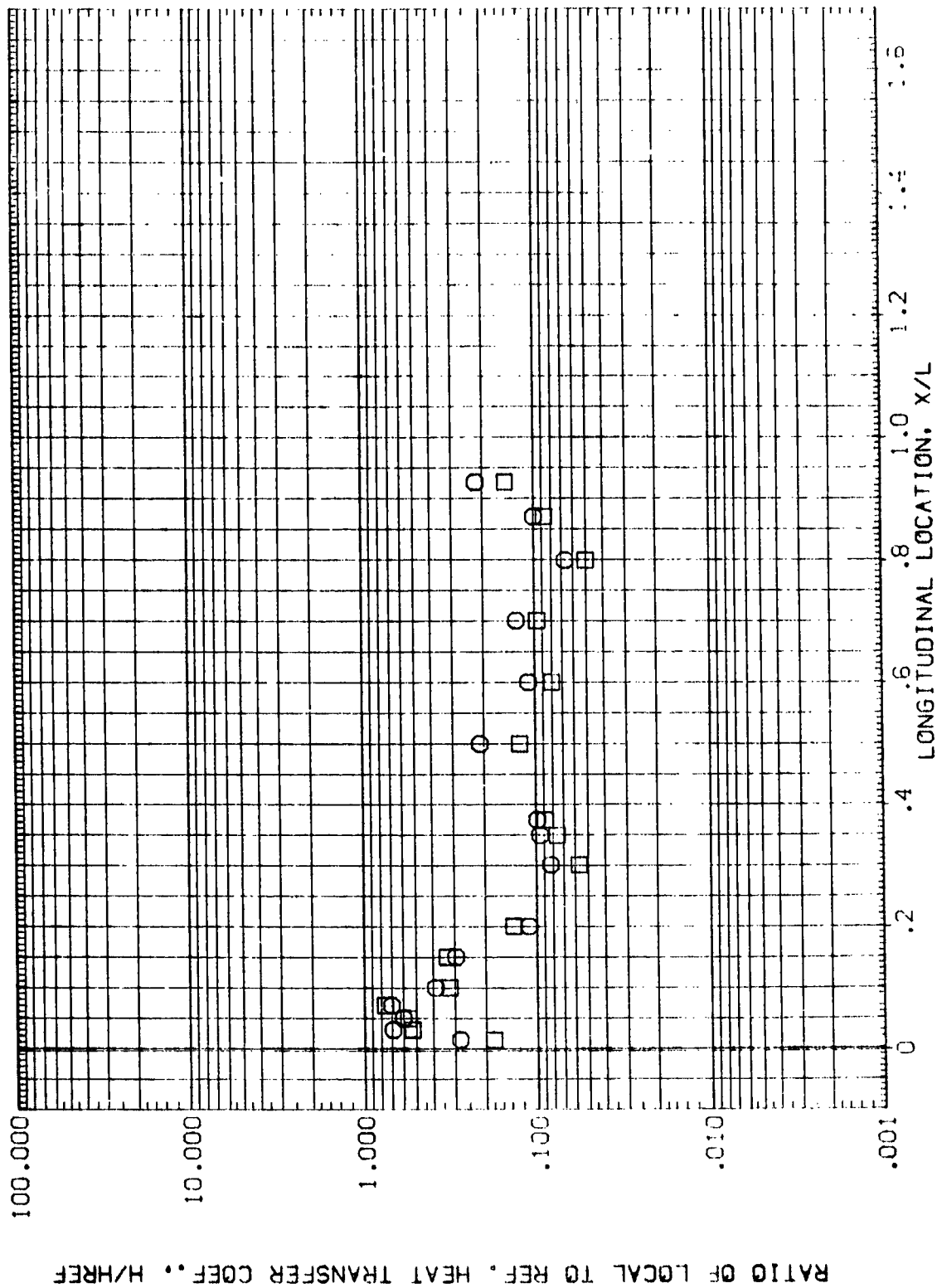


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .300 PHI = 217.700



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFTO) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

ALPHA BETA RV/L  
 5.000 .000 5.000  
 5.000 -5.000 5.000

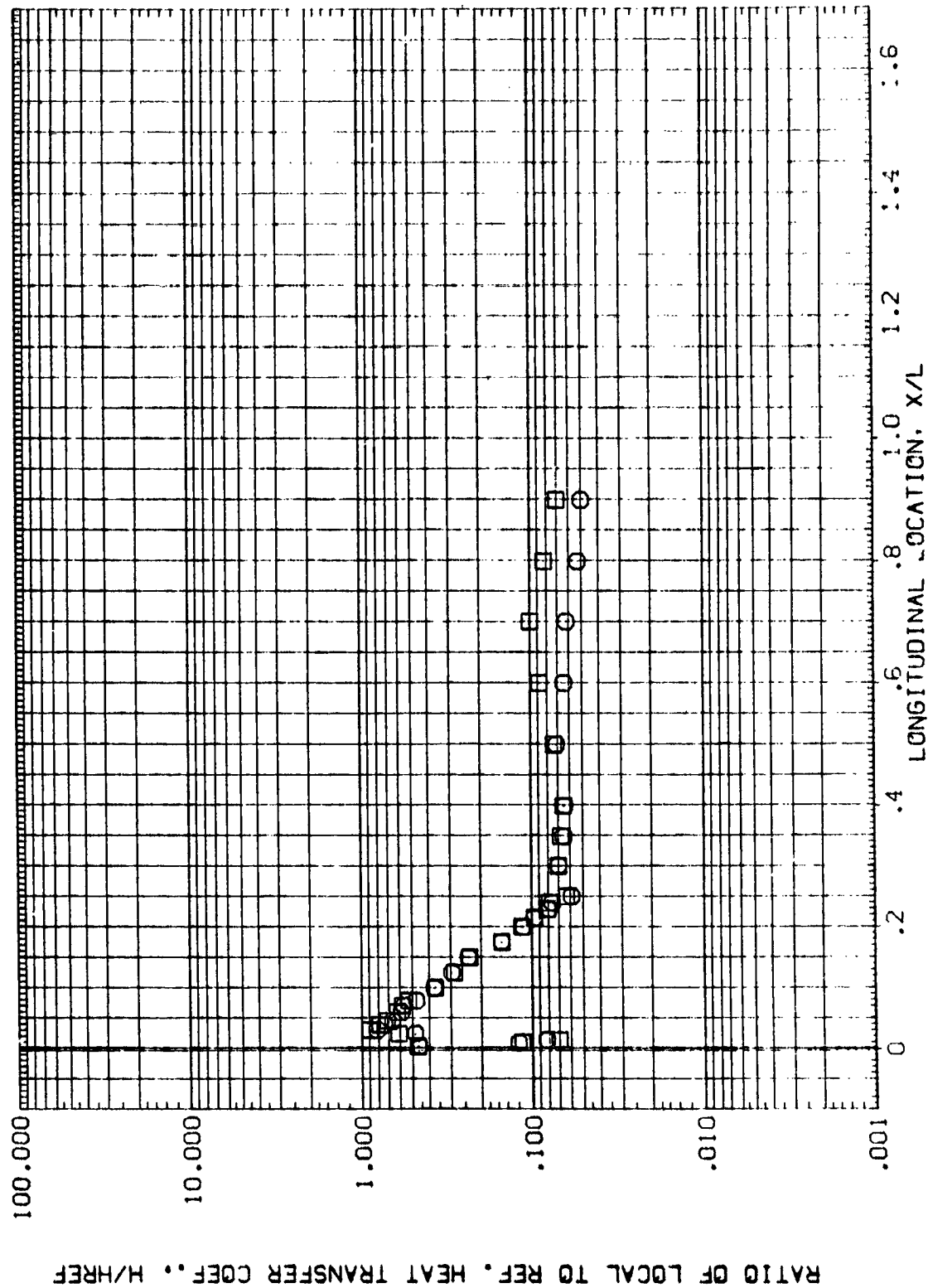


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RMBF04)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      5.000      5.000      5.000

(RMBF10)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      5.000      -5.000      5.000

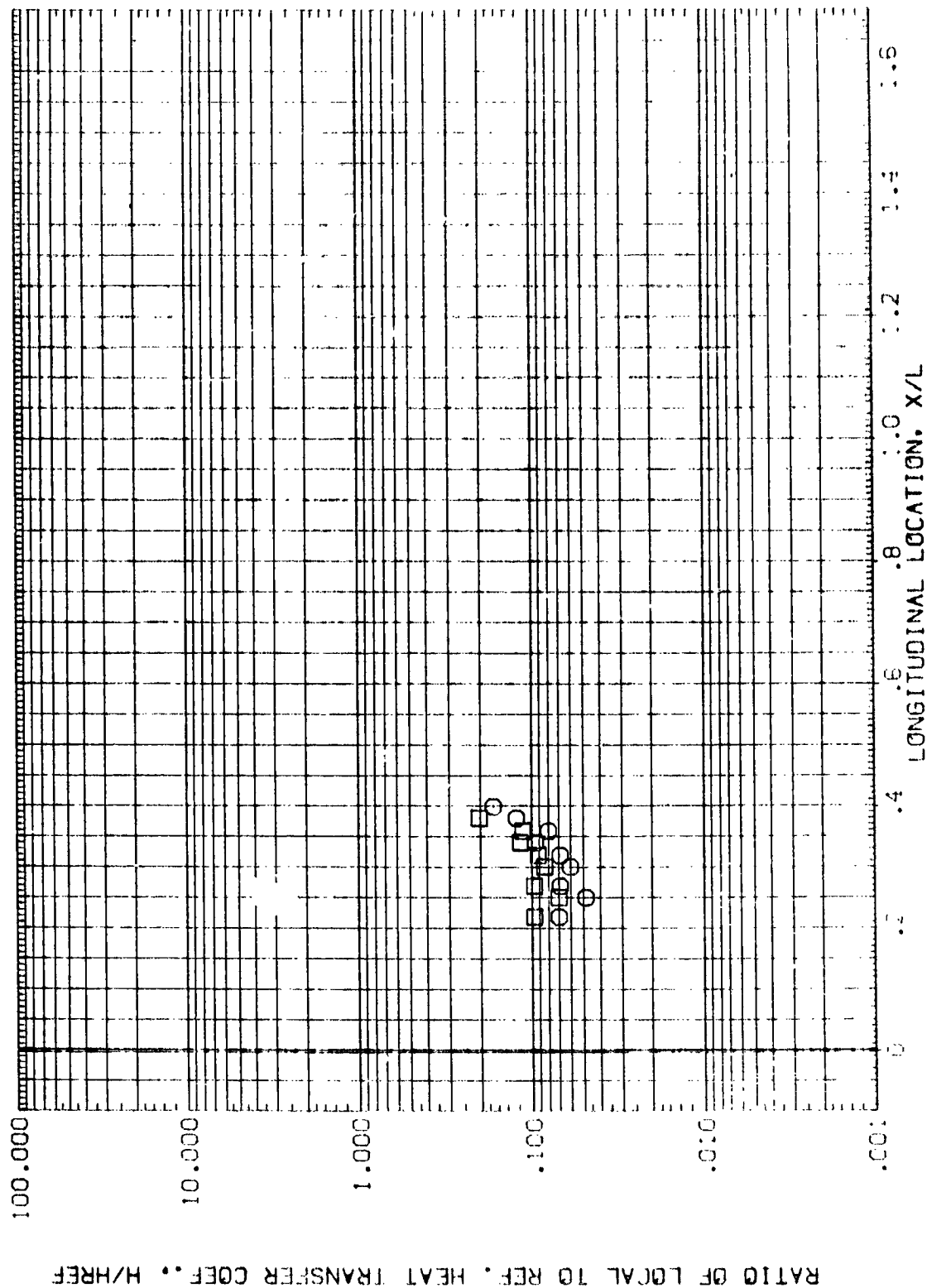


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HI = .900      PHI = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RH/L

(RNBFO4)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      EXT TANK      5.000      5.000

(RNBFIG)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK      -5.000      5.000

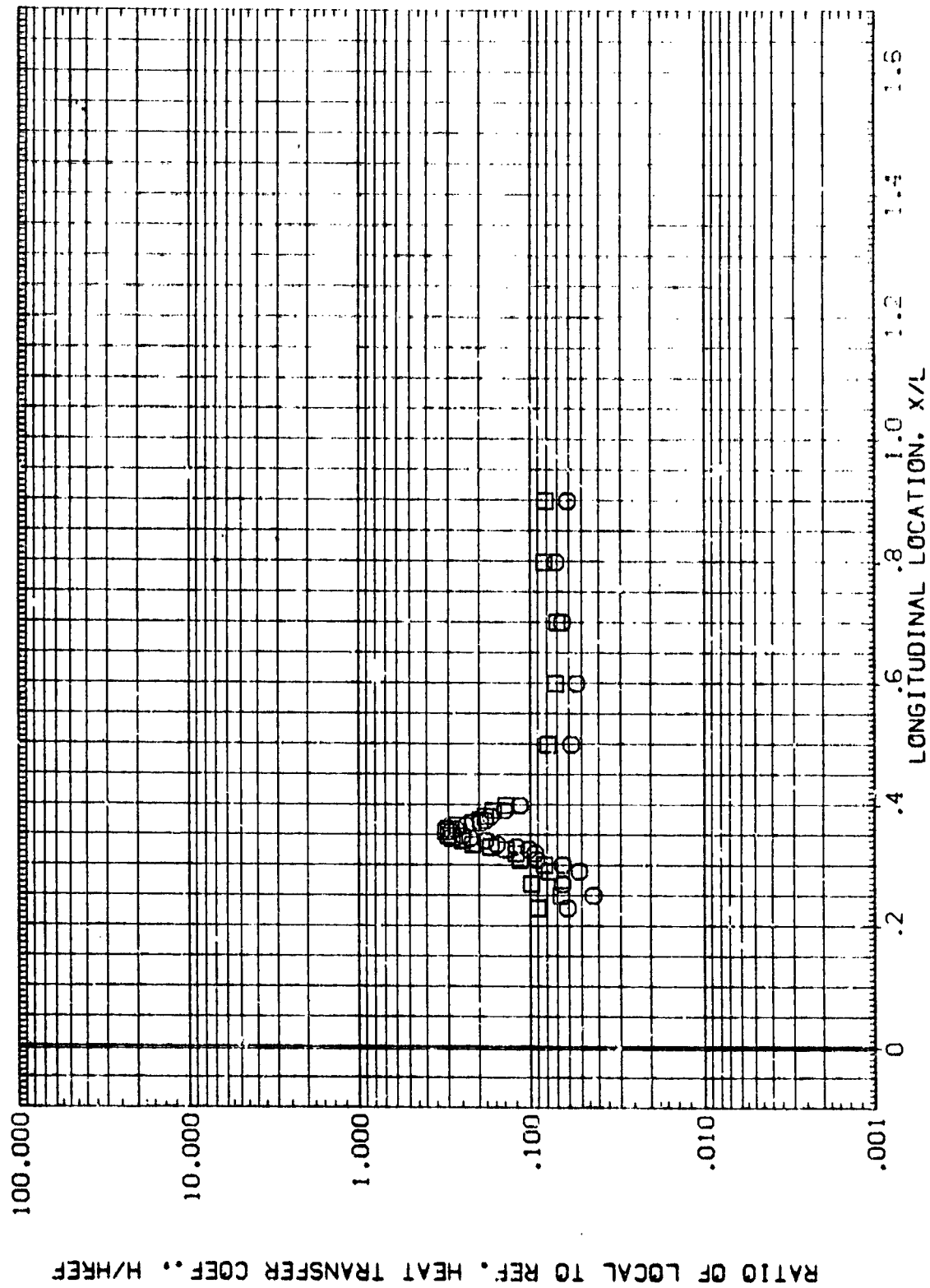


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 67.100

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RV/L  
 (RNBFO4) ARC3.5-211(C1H48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK 5.000 .000 5.000  
 (RNBFI0) ARC3.5-211(C1H48)OTS/NIPPLE/P/TRIP EXT TANK 5.000 -5.000 5.000

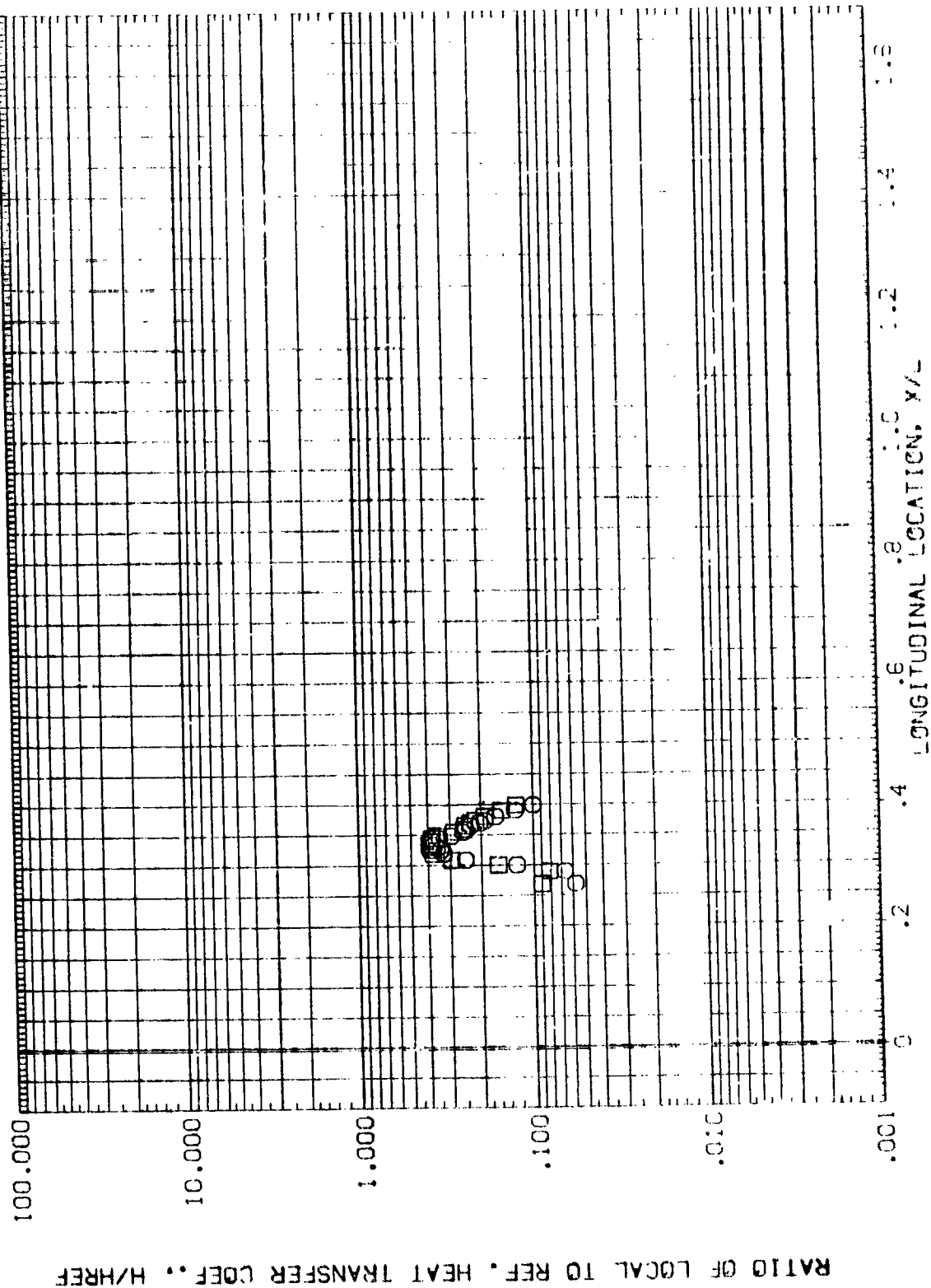


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(R48F04)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    5.000    .000    5.000

(R48F10)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    5.000    -5.000    5.000

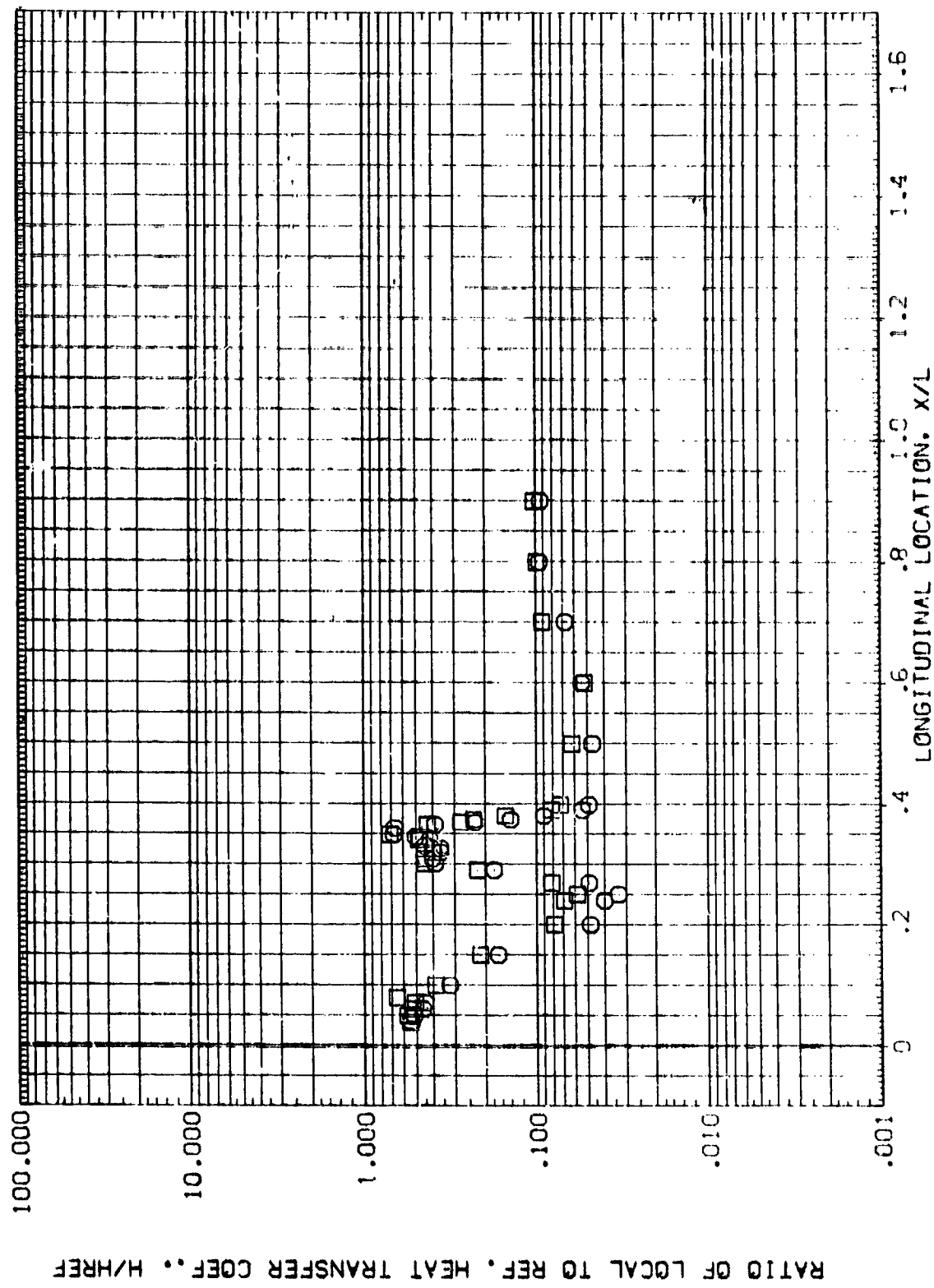


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .300    PHI = 30.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RV/L  
 (RNBFO4)      ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      5.000      .000      5.000  
 (RNB510)      ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP      5.000      -5.000      5.000

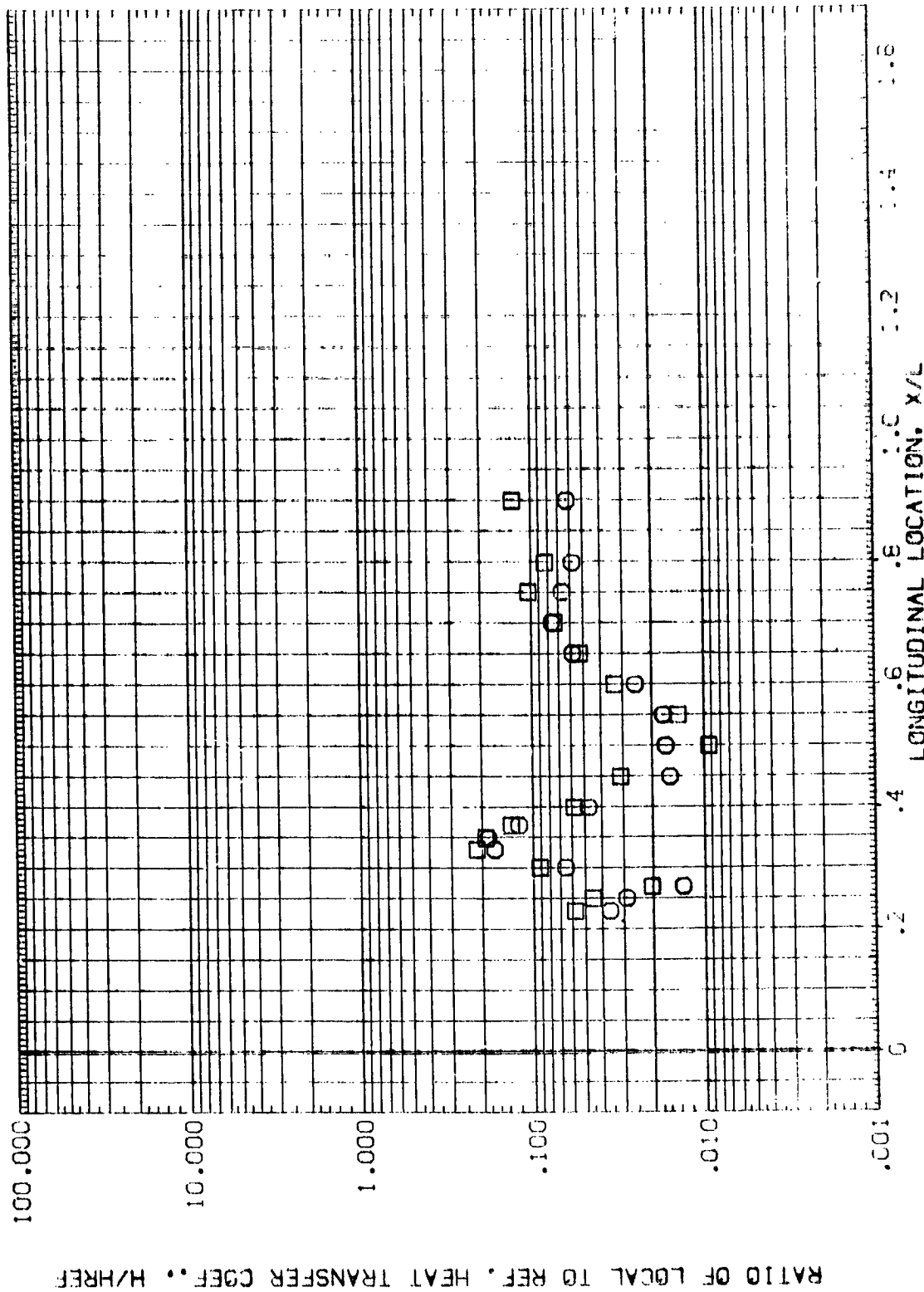


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HREF = .900 PHI = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA       $Re_{x/L}$   
 (RNB504)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      5.000      0.000      5.000  
 (RNB10)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      5.000      -5.000      5.000

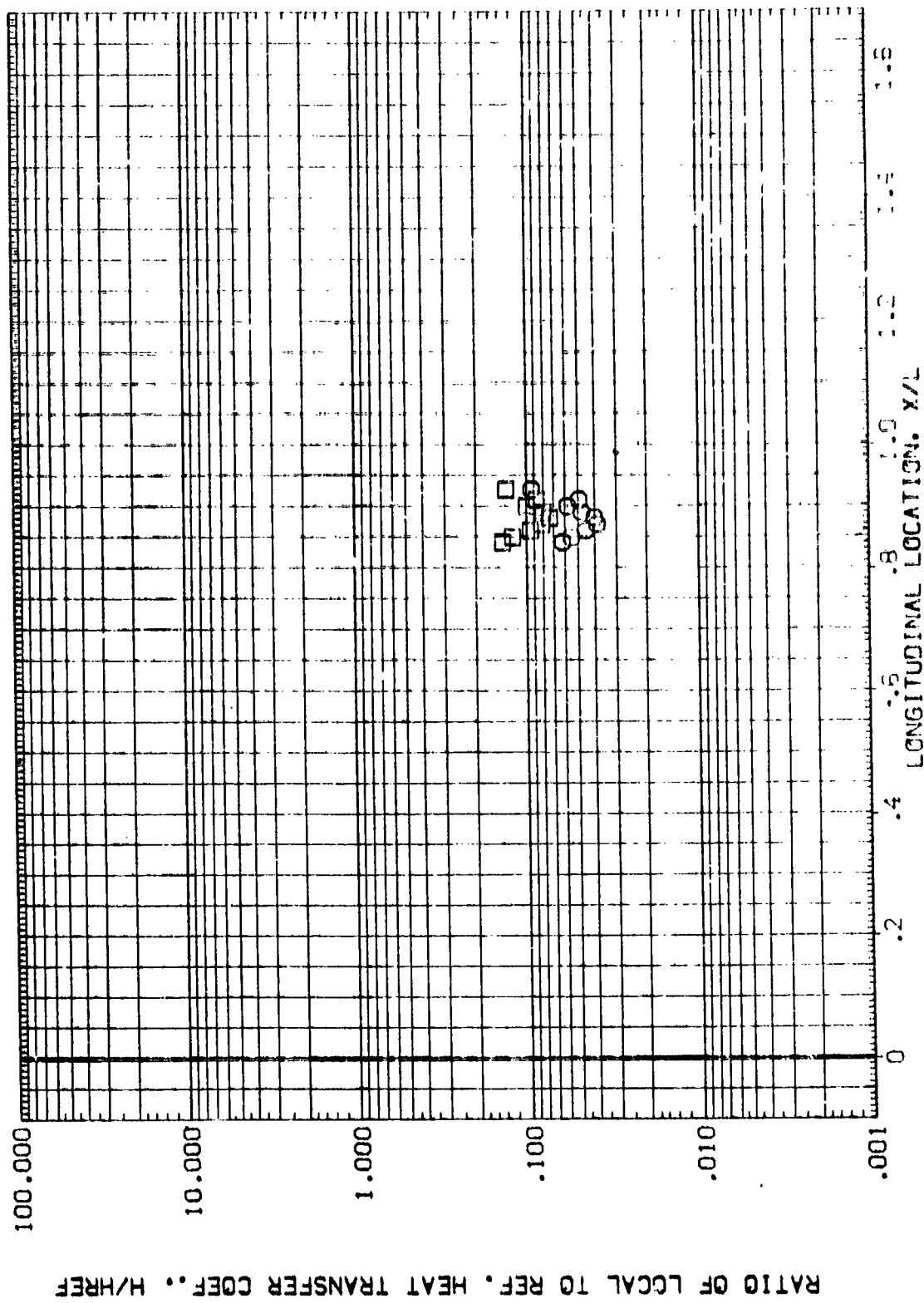


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300       $HAW/H_T = 0.900$        $P-H = 125.400$

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO4) ☐ ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFI0) ☐ ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

ALPHA BETA RW/L  
 5.000 -5.000 5.000

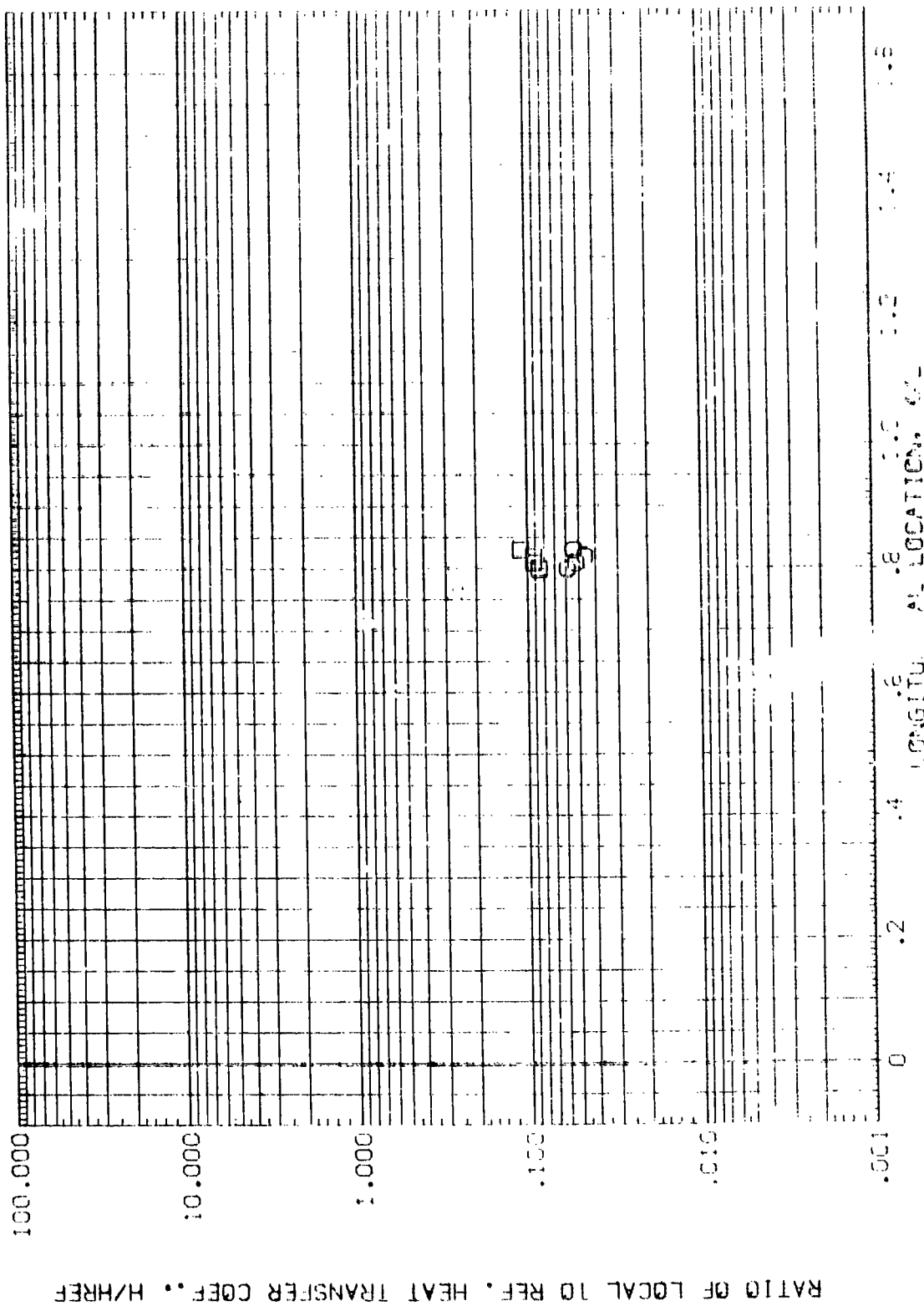


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAWKITE = 30.000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RV/L  
 (RNF04)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      5.000      .000      5.000  
 (RNF10)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      5.000      -5.000      5.000

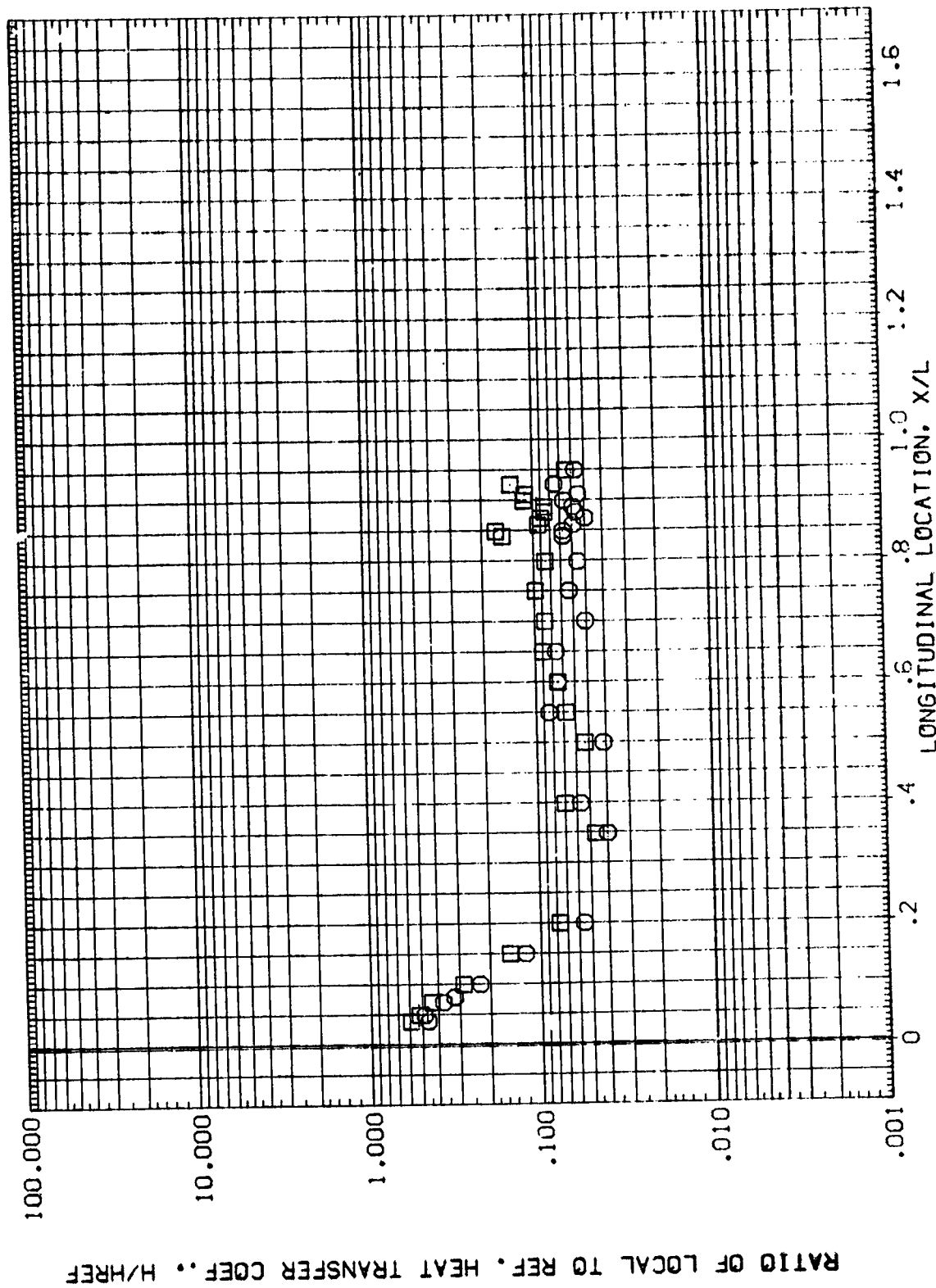


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/P-T = .900 P-HI = 135.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RN/L  
 (RNBFO4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK 5.000 5.000  
 (RNBFI0) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK 5.000 -5.000

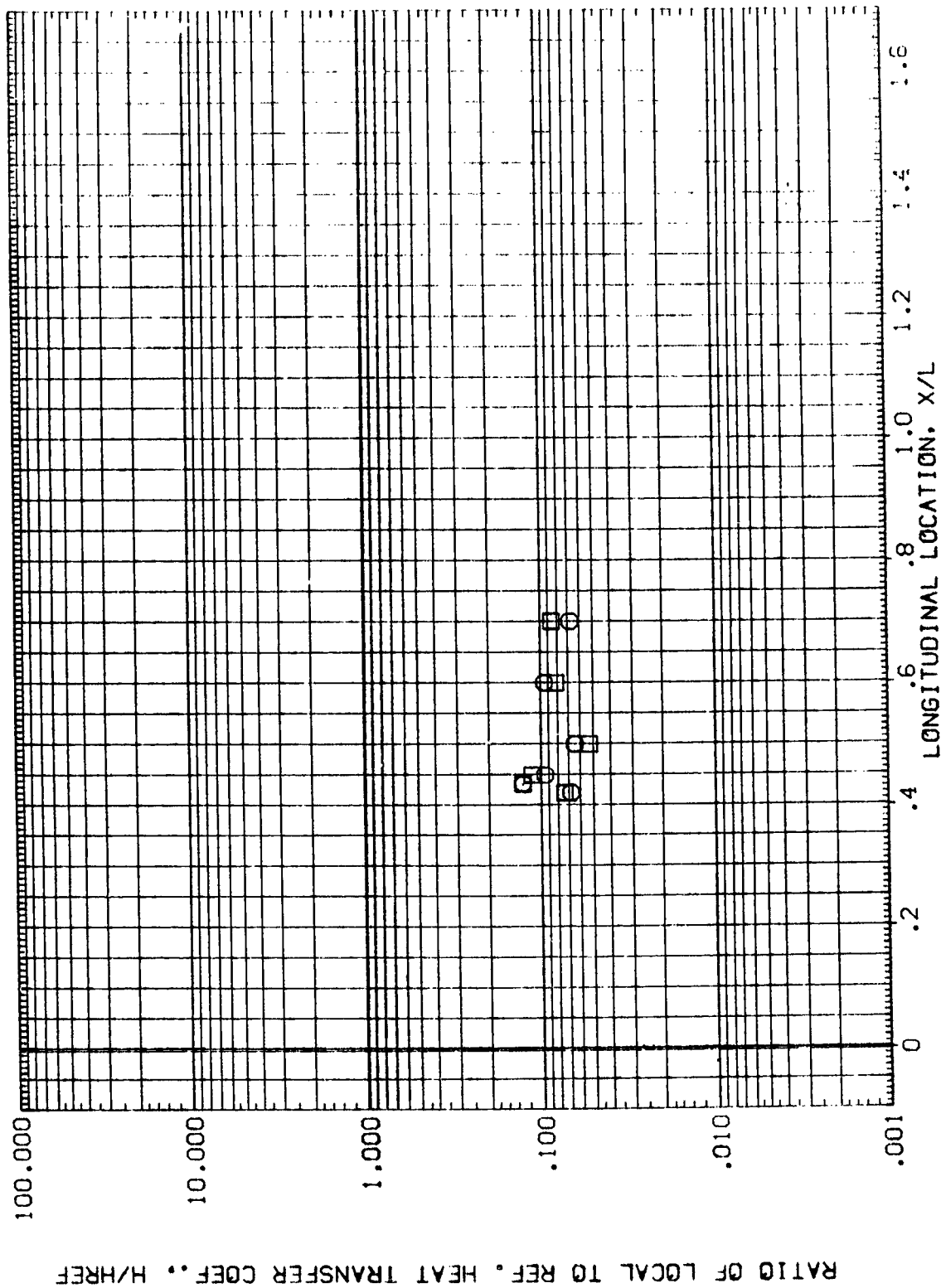


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
(RNBFI0) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA RN/L  
5.000 .000 5.000  
5.000 -5.000 5.000

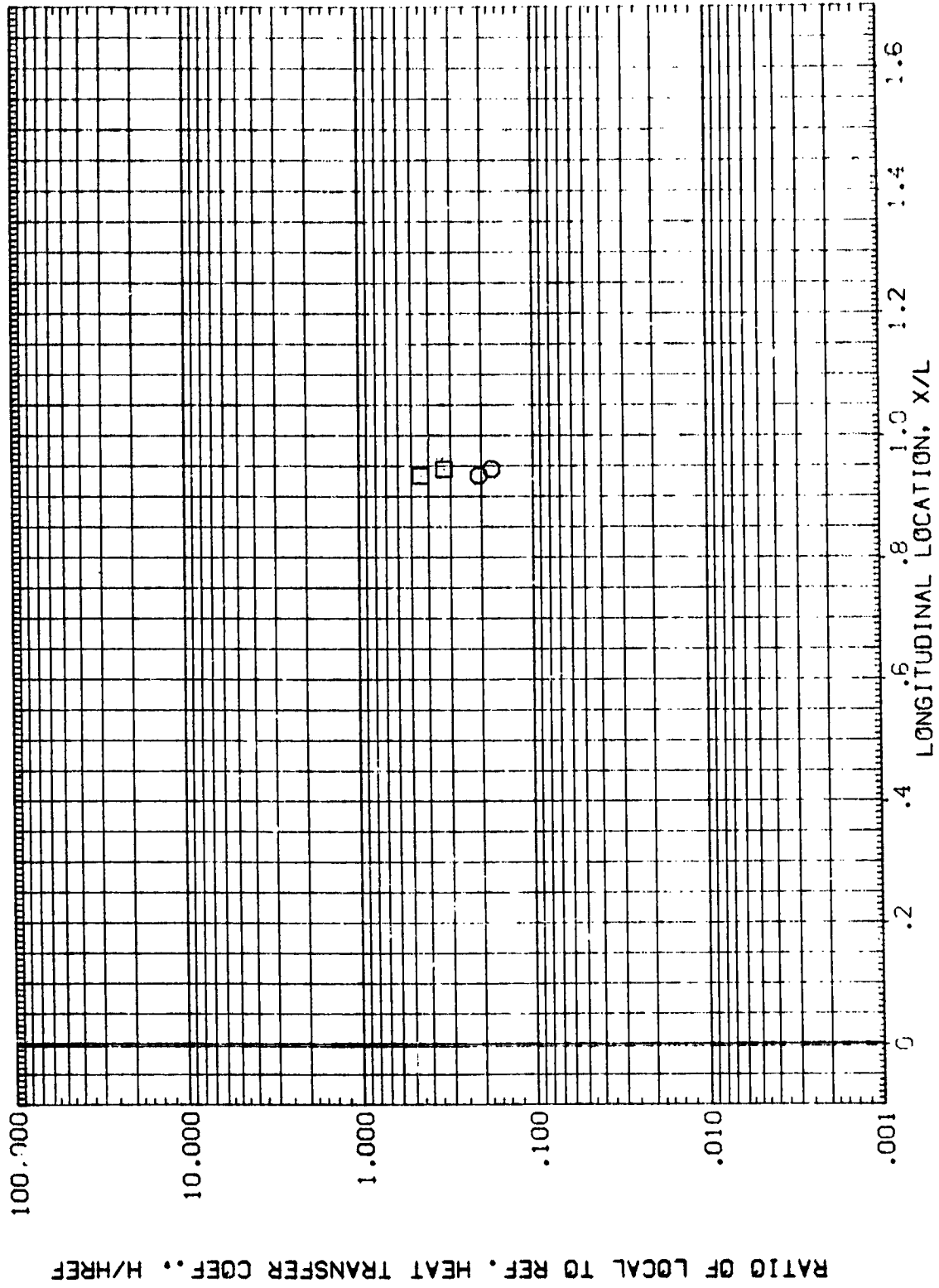


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (R1BF04)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK    5.000    5.000    5.000  
 (R1BF10)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    5.000    -5.000    5.000

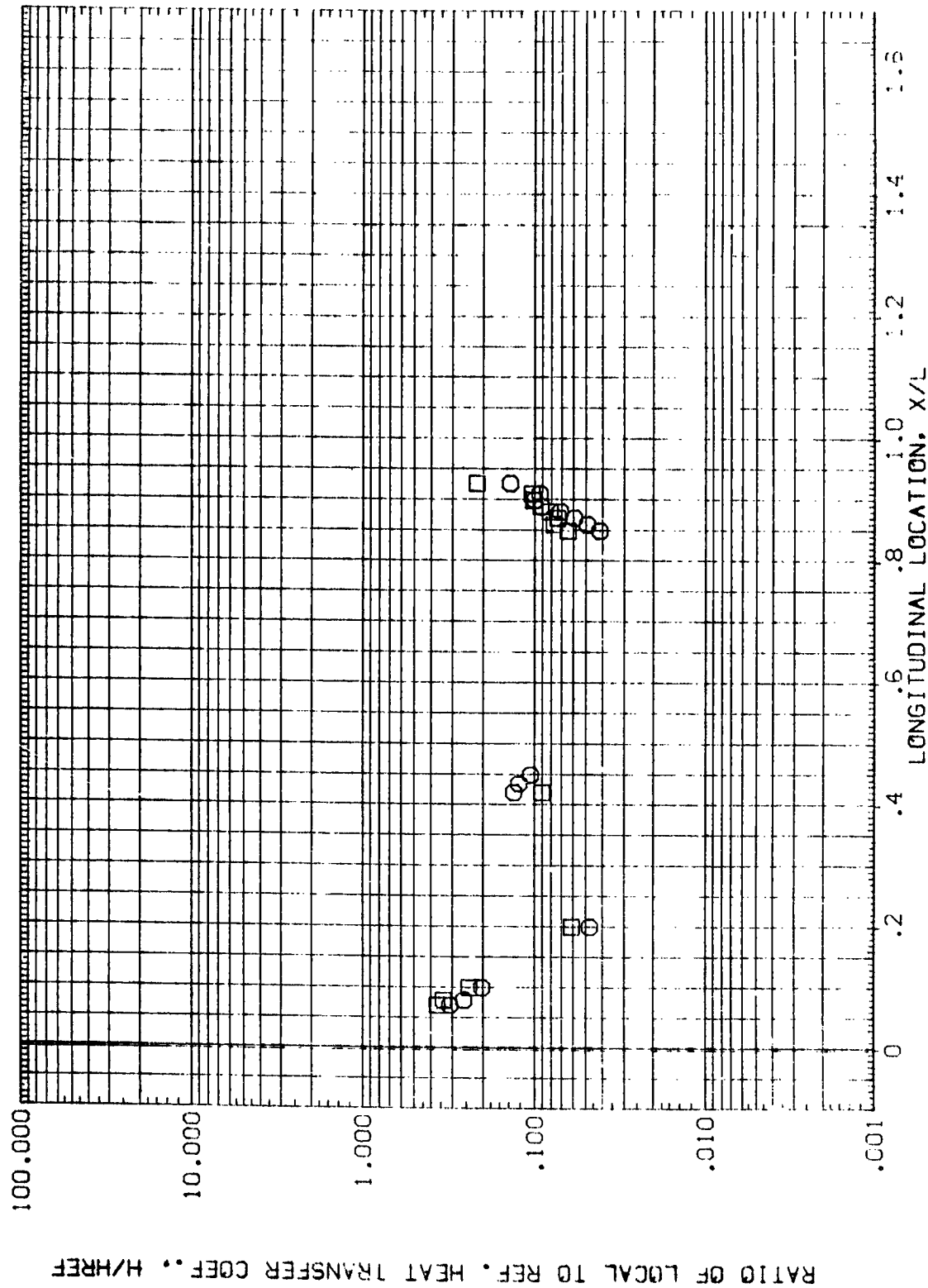


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 157.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFO4)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)    EXT TANK    5.000    5.000  
 (RNBFI0)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    EXT TANK    5.000    -5.000

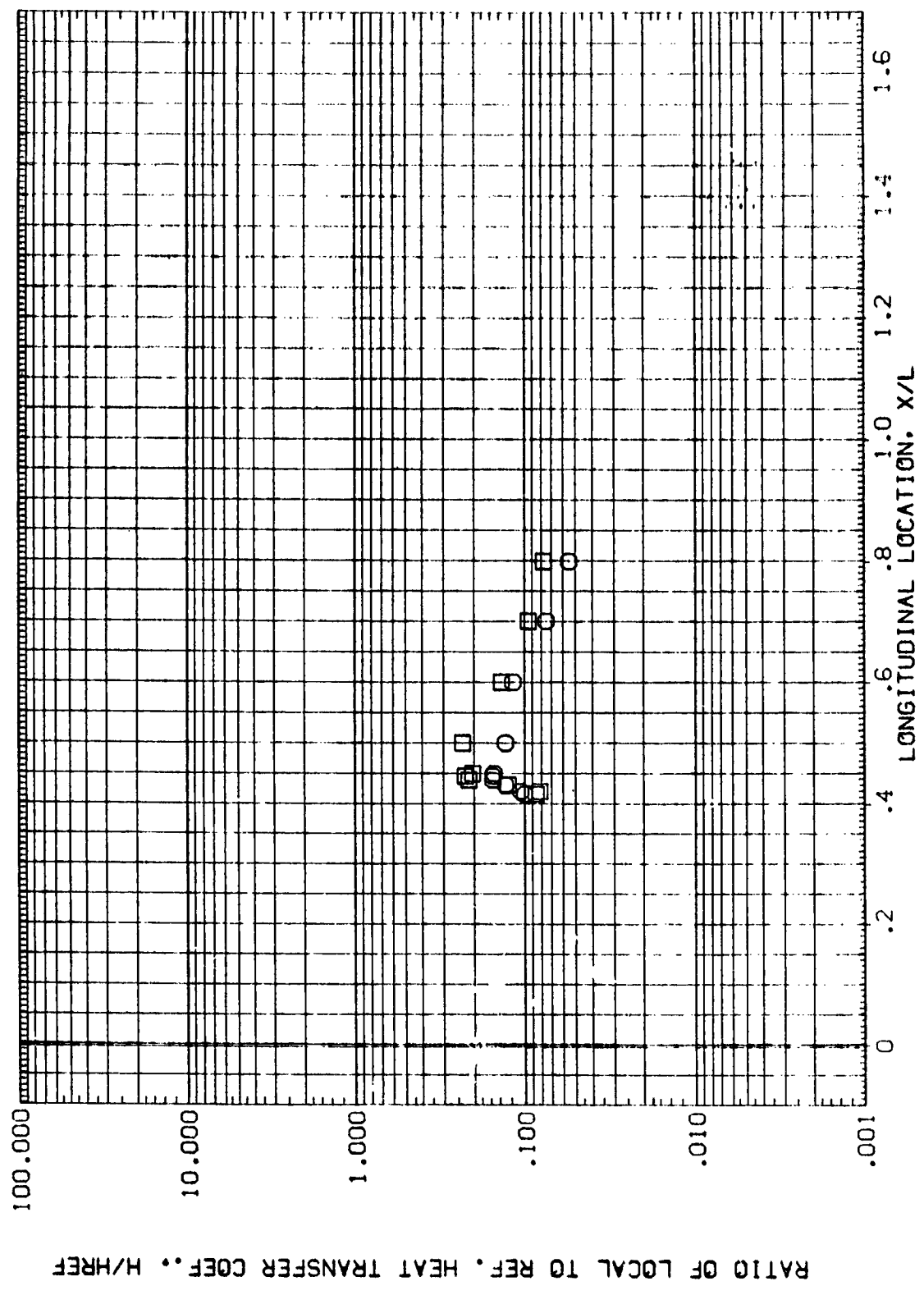


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA       $R^2/L$   
 (RNBFO4)      ARC3.5-211C1H48JOTS/NIPPLE/P/TRIP(O-S)      5.000      .000      5.000  
 (RNBFO3)      ARC3.5-211C1H48JOTS/NIPPLE/P/TRIP      5.000      -5.000      5.000

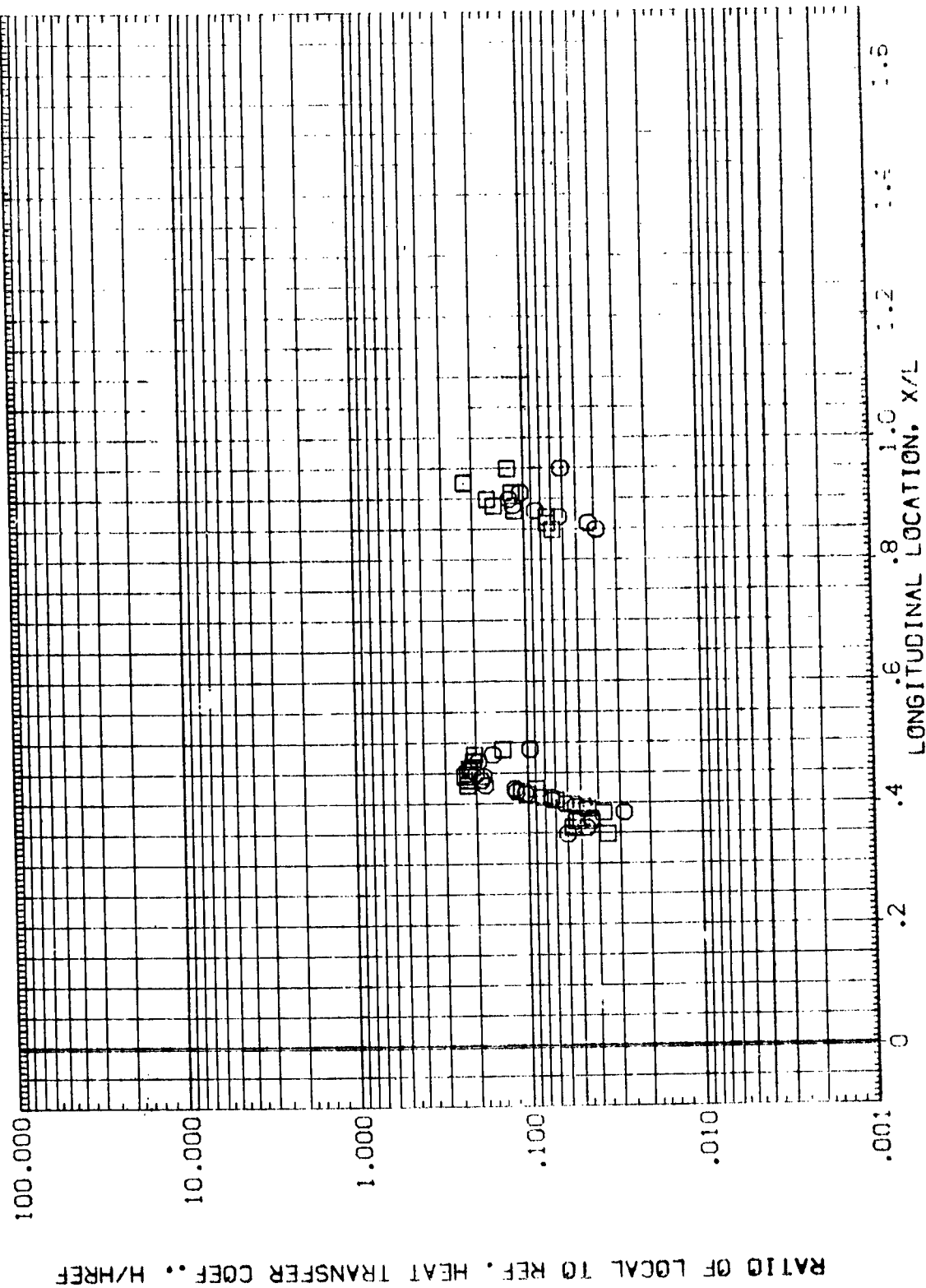



FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PLI = 168.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO4)  (RNBFL0)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA 5.000 5.000  
BETA -5.000 -5.000  
RN/L 5.000 5.000

RATIO OF LOCAL TO REF. HEAT TRANSFER COEF., H/HREF

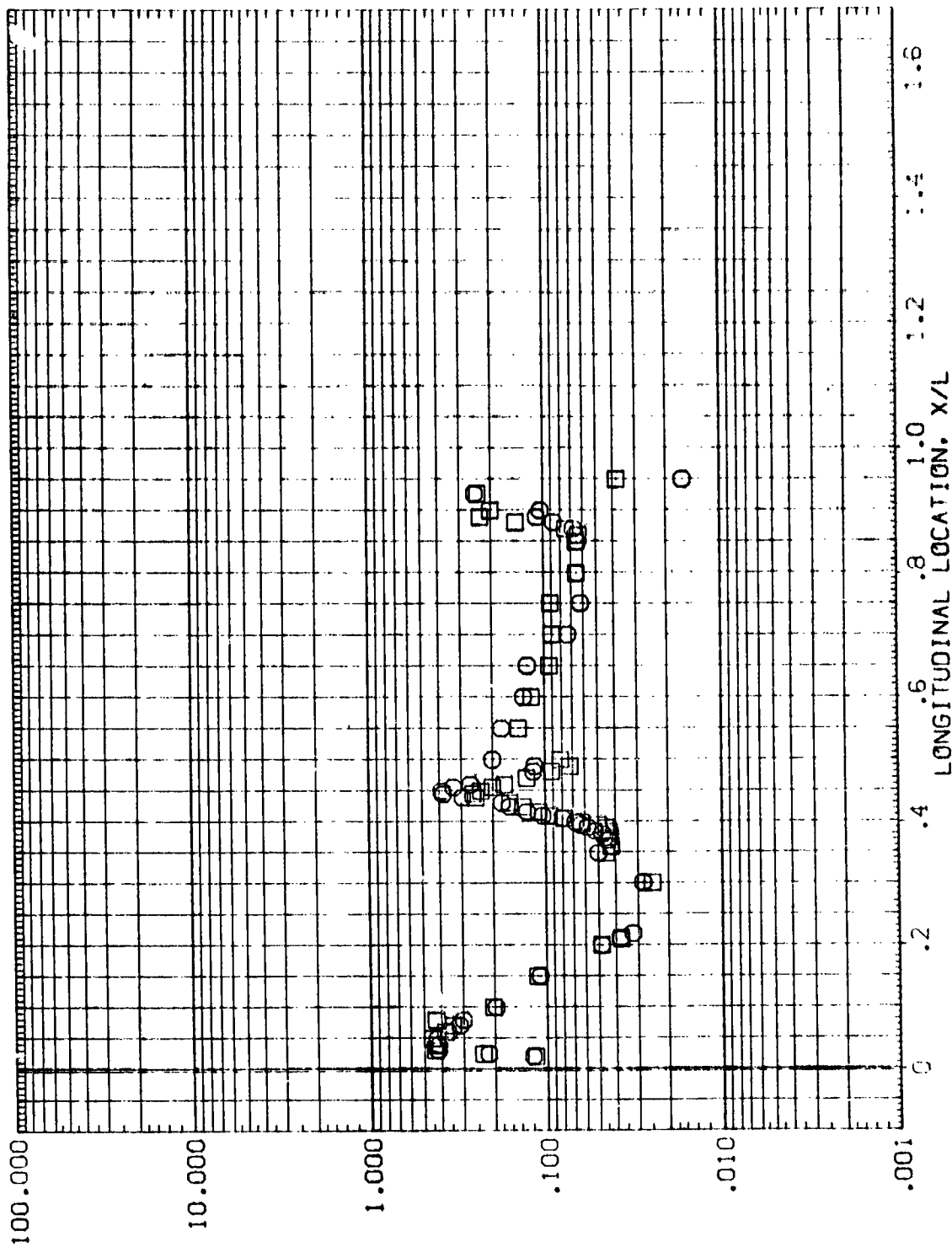


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P-I = 180.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
 (RNBFI0) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK

ALPHA BETA RAO/L  
 5.000 .000 5.000  
 5.000 -5.000 5.000

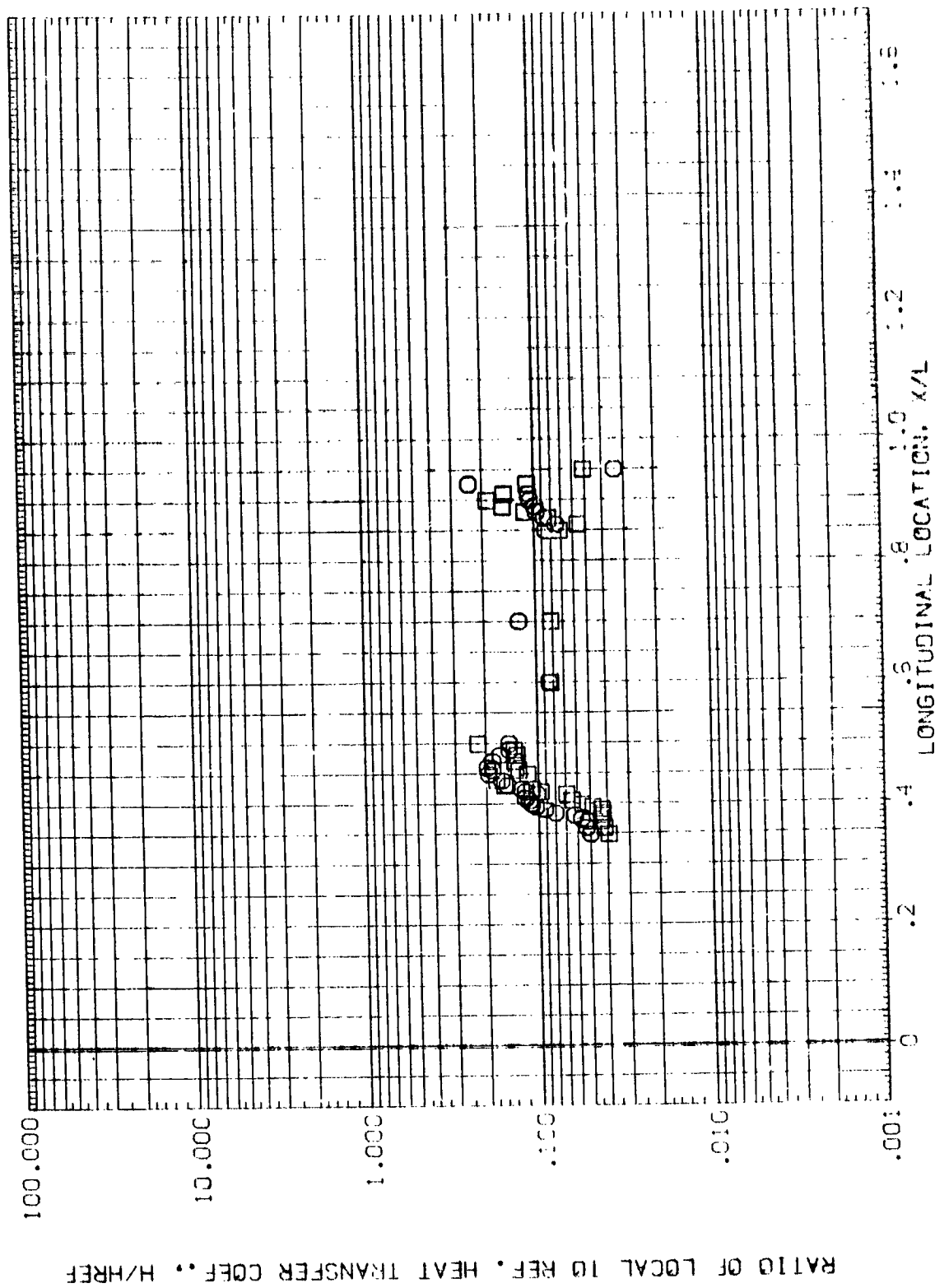


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300  $h^*_{w}/h^*_{ref} = .900$   $Pr = .71$



DATA SET SYMBOL: (RABF04) (RABF10) CONFIGURATION DESCRIPTION: ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP EXT TANK ALPHA: 5.000 5.000 BETA: .000 -5.000 RN/L: 5.000 5.000

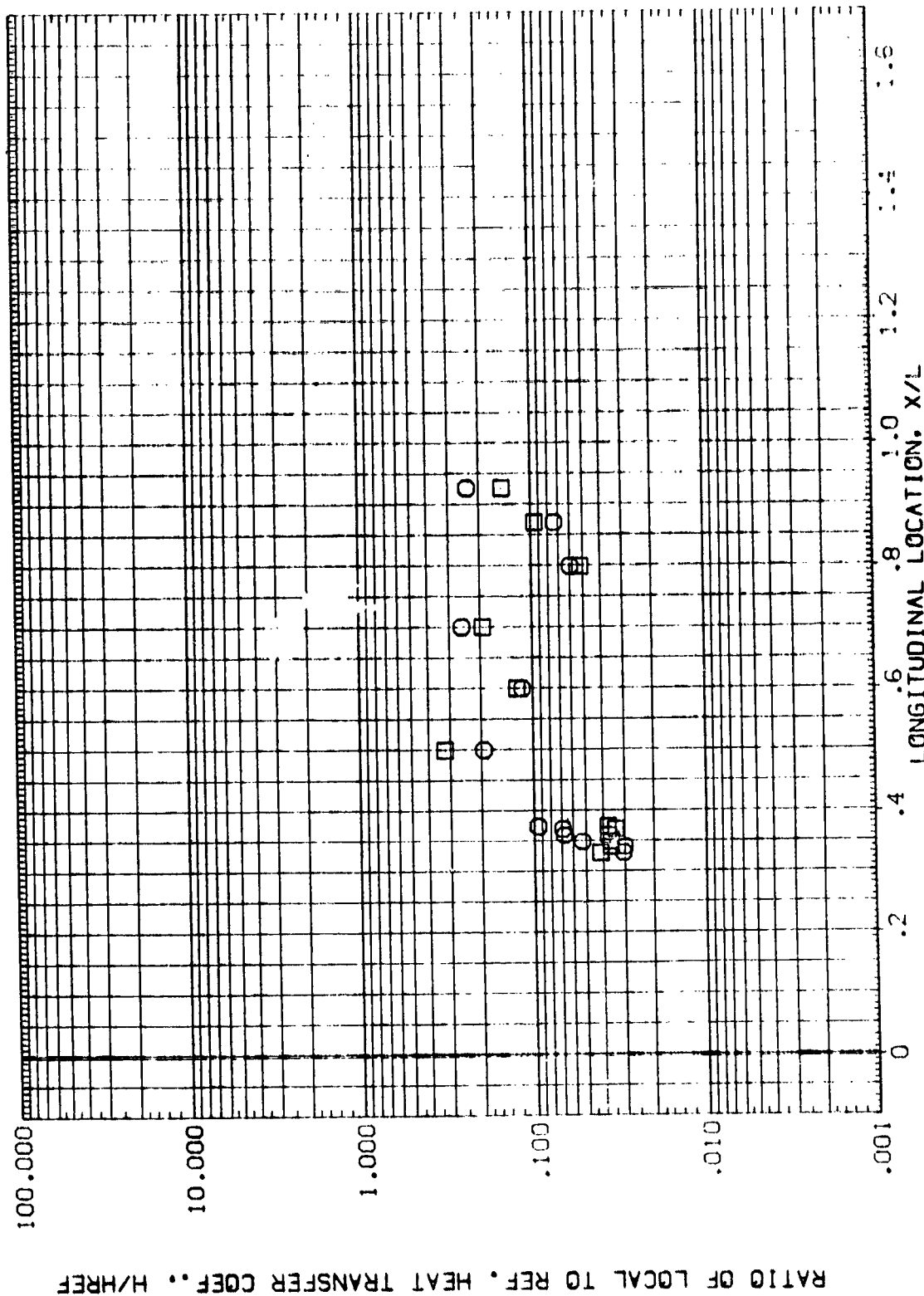


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HTE = .900 PHI = 197.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O-S)    EXT TANK    5.000    .000    5.000

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP    EXT TANK    5.000    -5.000    5.000

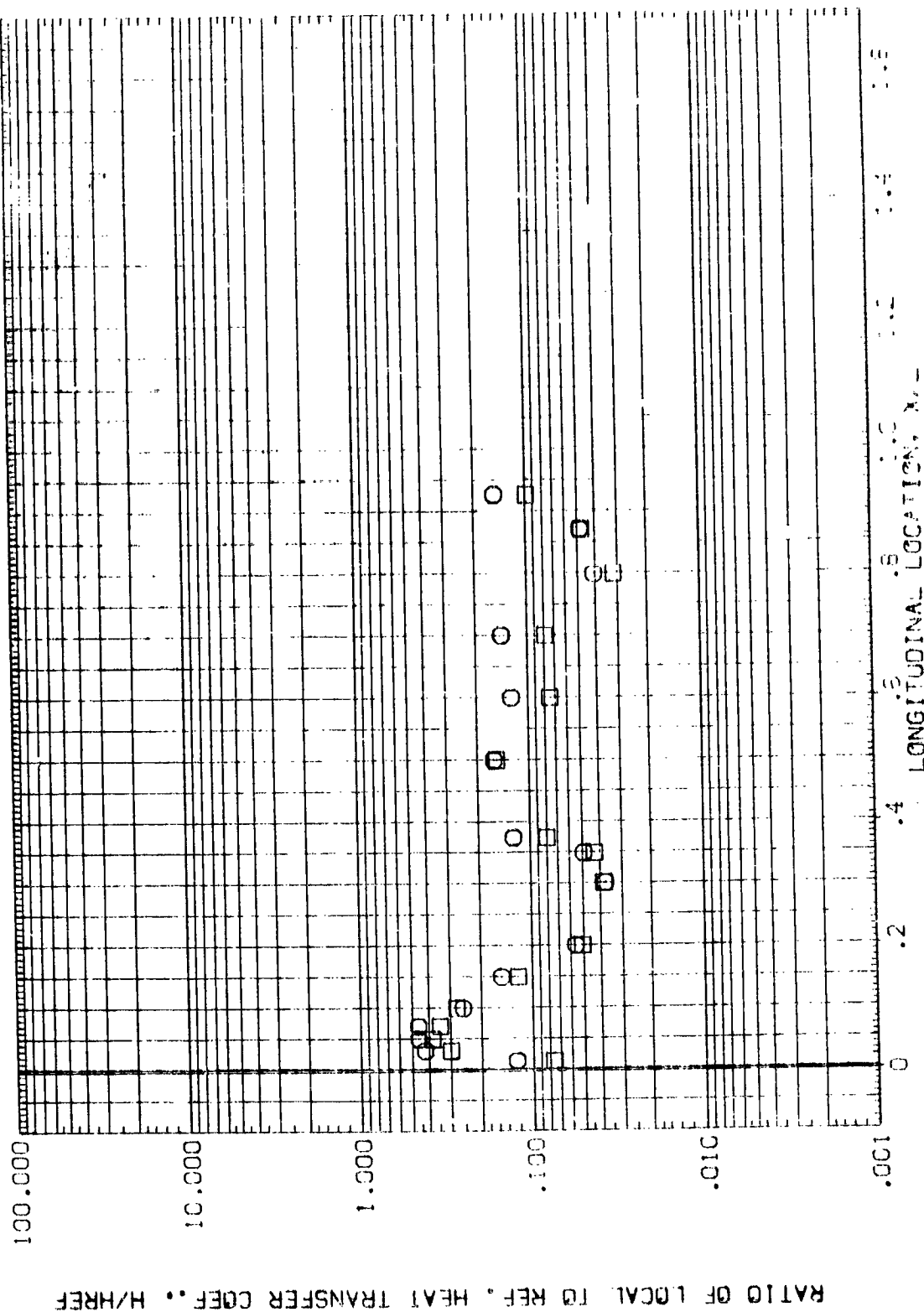


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    P/H = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNF04)

(RNF10)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)      EXT TANK

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP      EXT TANK

5.000      -5.000      5.000

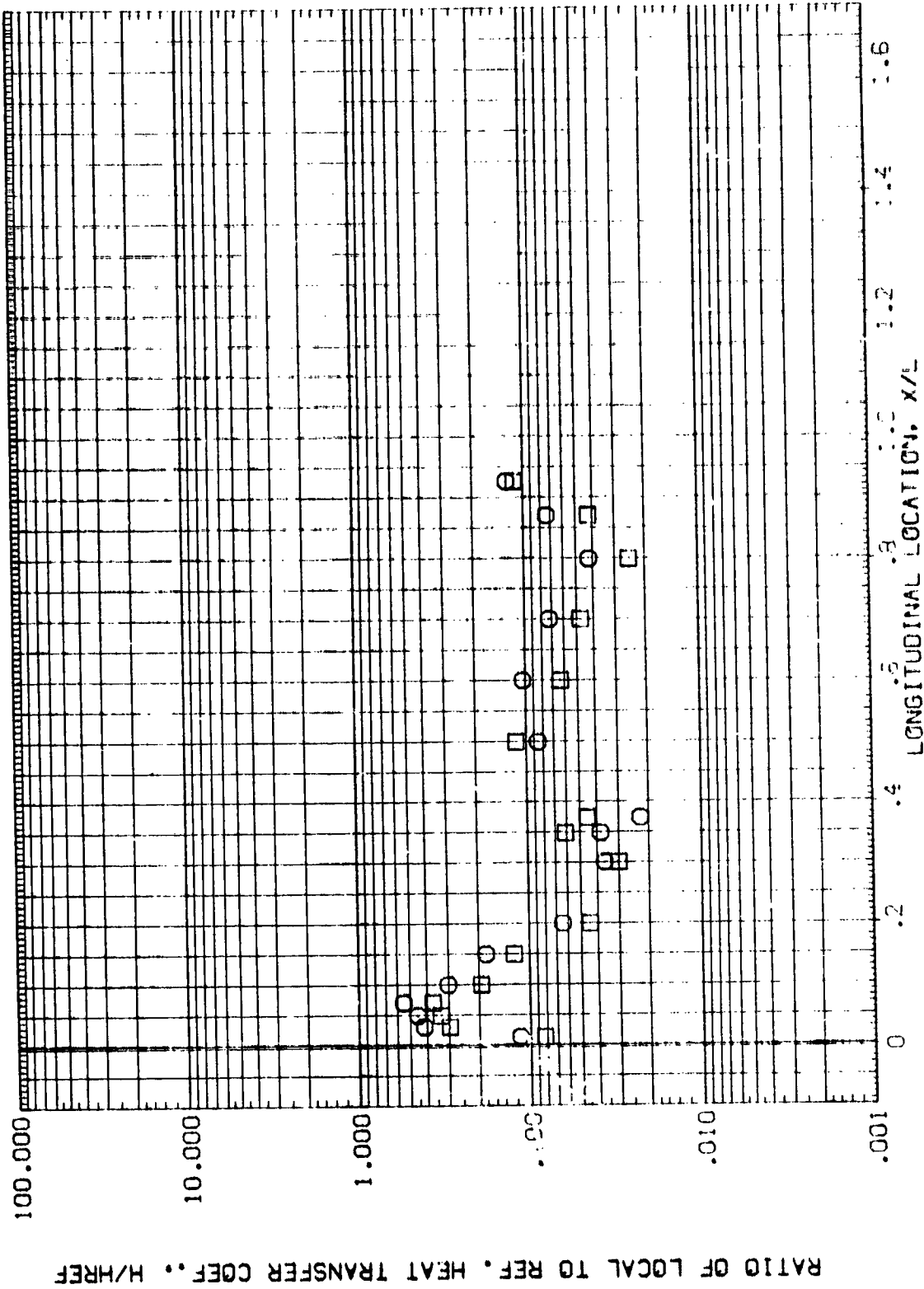


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HREF = 900      PHI = 217.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    PR. -  
 (RMBF15)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 (RMBF11)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    -5.000    5.000

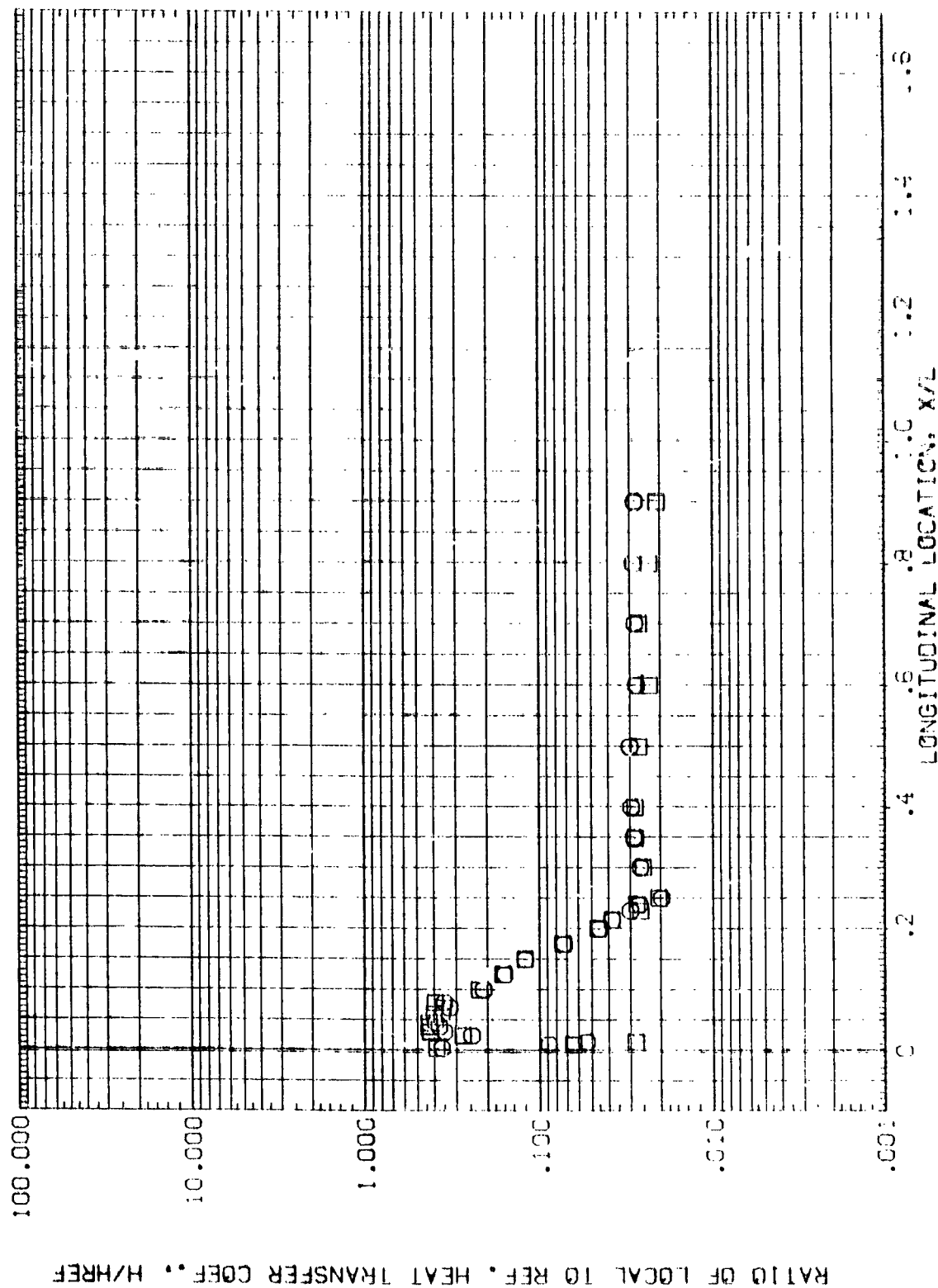


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .300    PHI = .000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA       $R_{\infty}/L$   
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000  
 (RNBFI1)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000

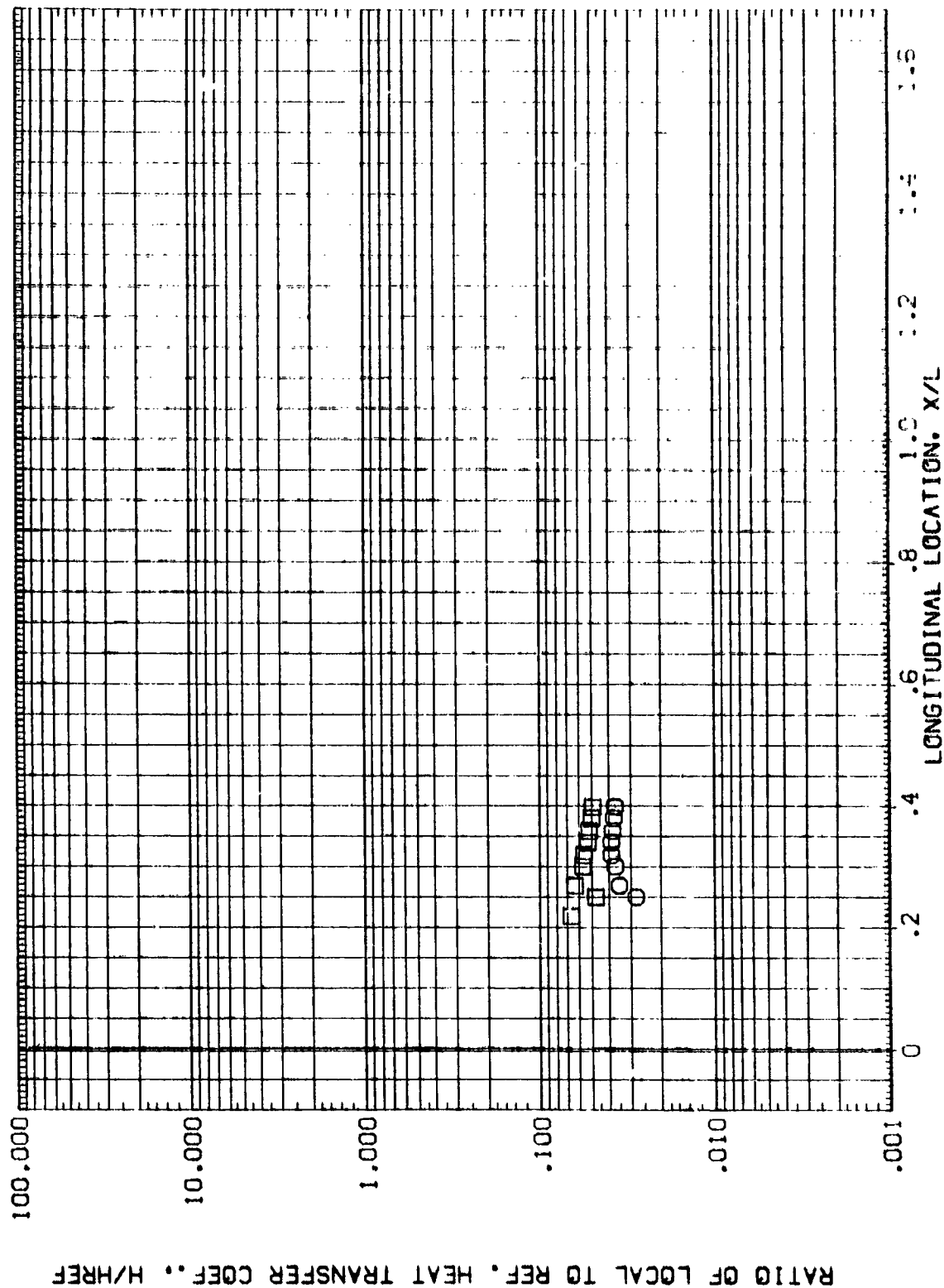


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 55.000

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: ALPHA BETA RAYL  
 (RNGF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP -5.000 .000 5.000  
 (RNGF11) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP -5.000 -5.000 5.000

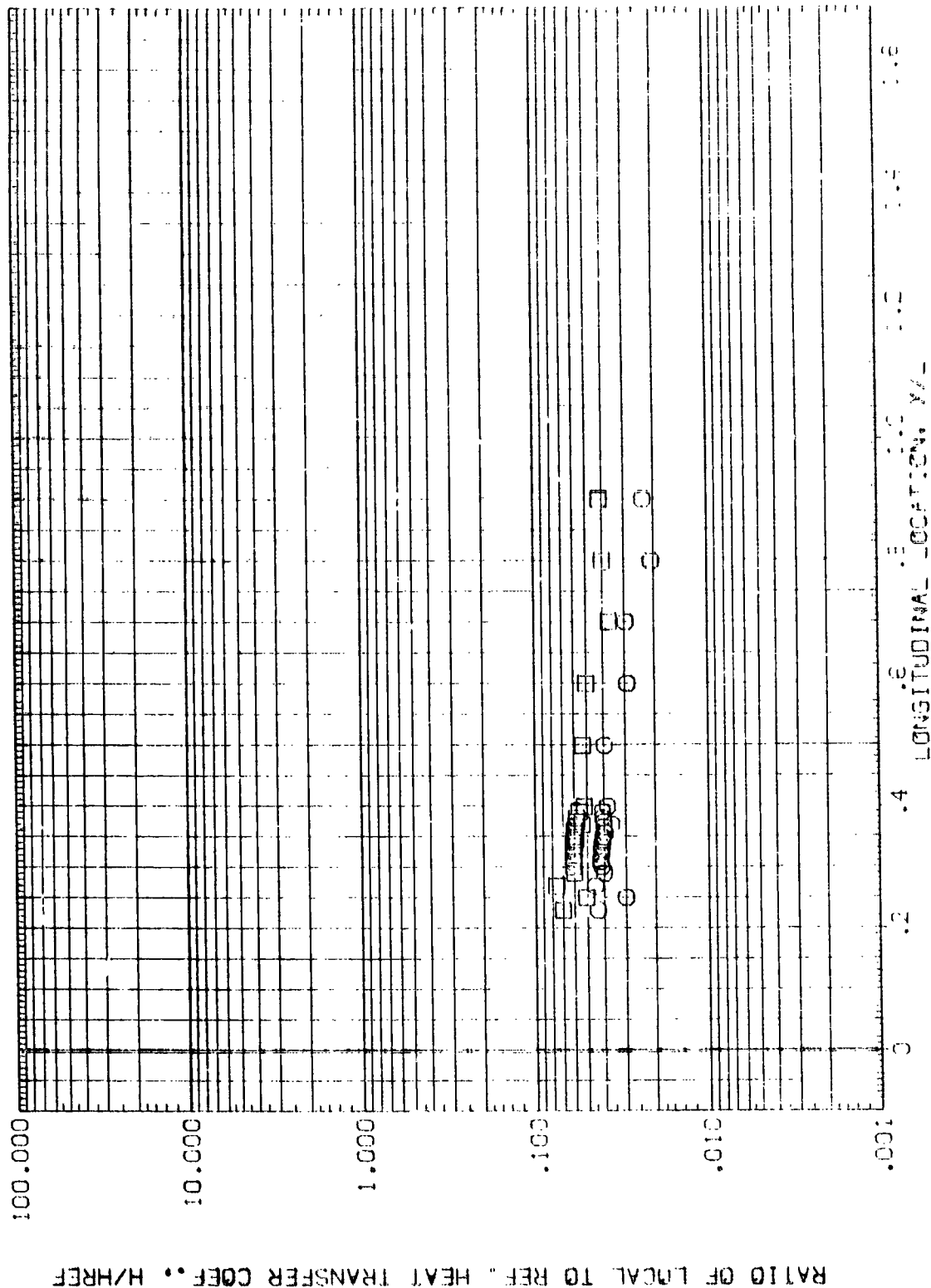


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HTE = .200 PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 ( RMBF15 )    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 ( RMBF11 )    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    -5.000    15.000

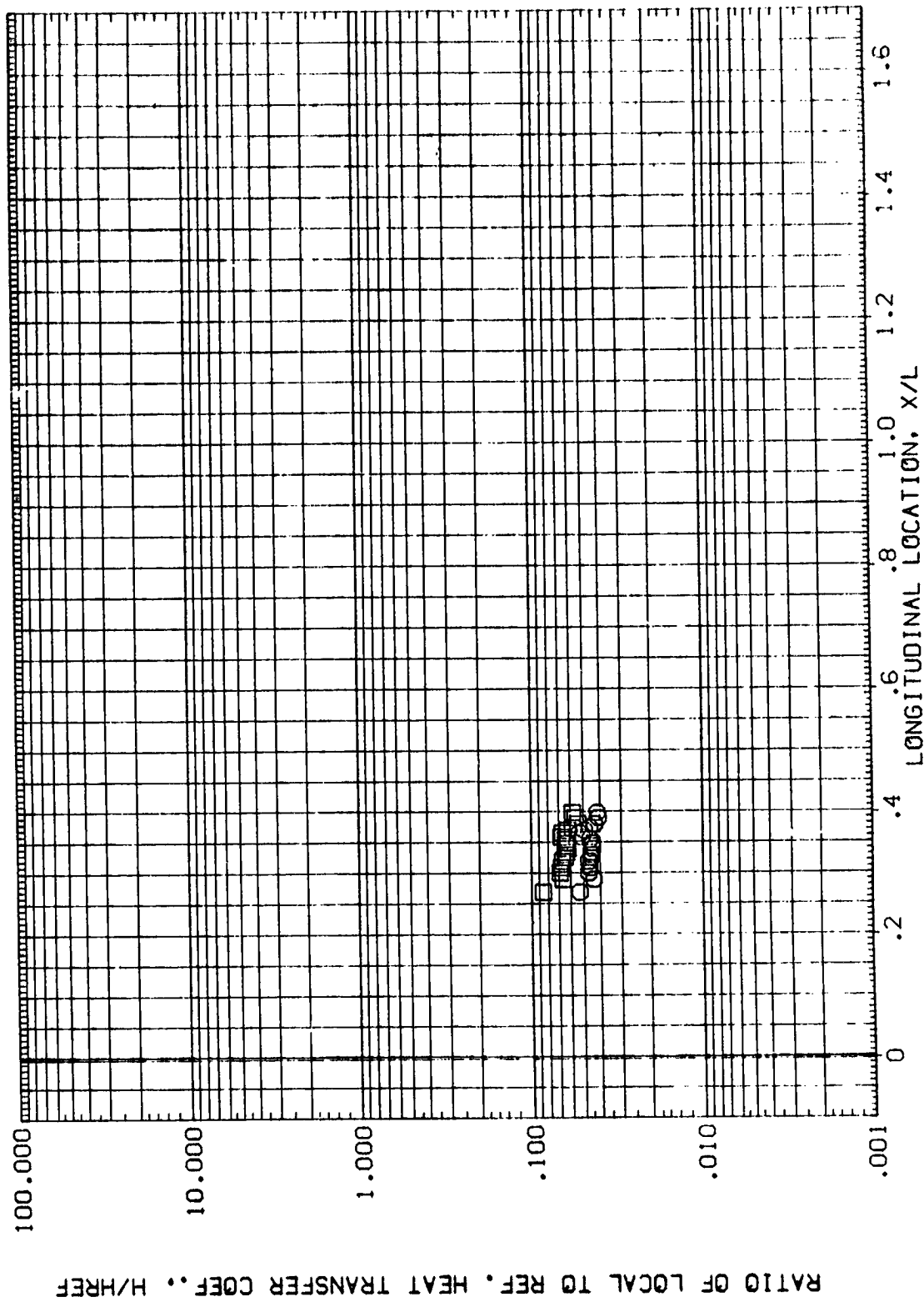


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 78.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000  
 (RNBFI1)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000

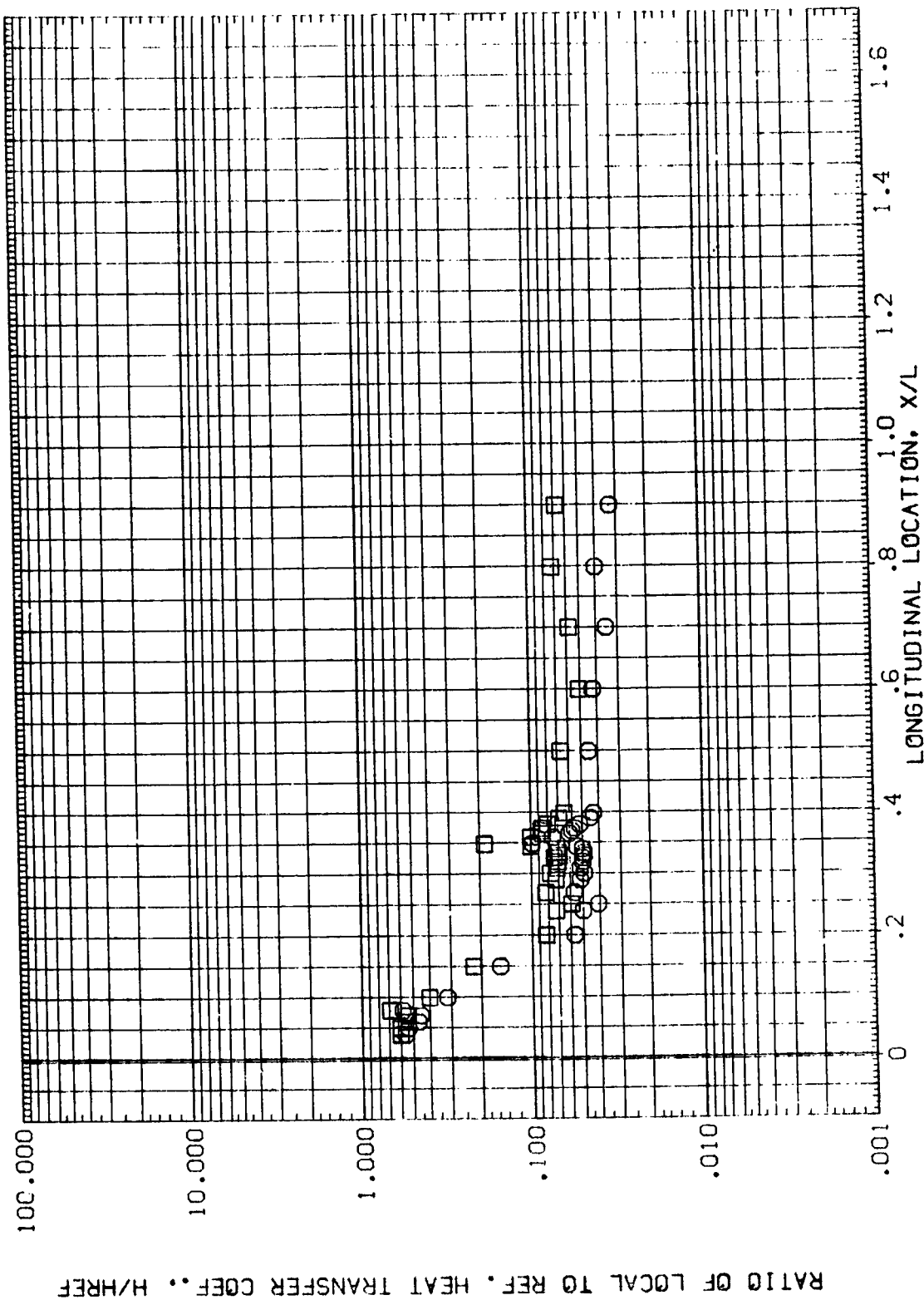


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 90.000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000  
 (RNBFI1)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000

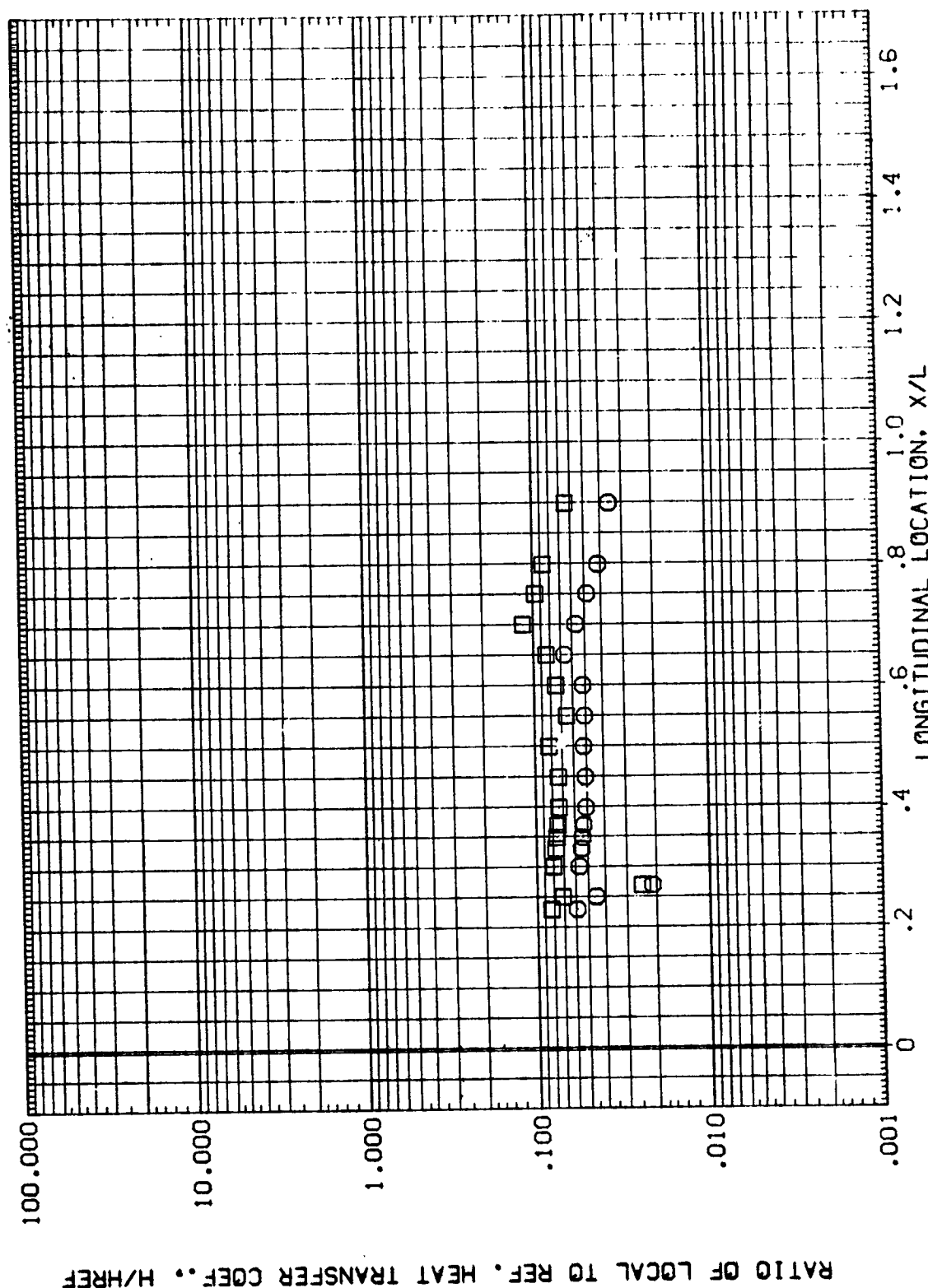


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000  
 (RNBFI1)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000

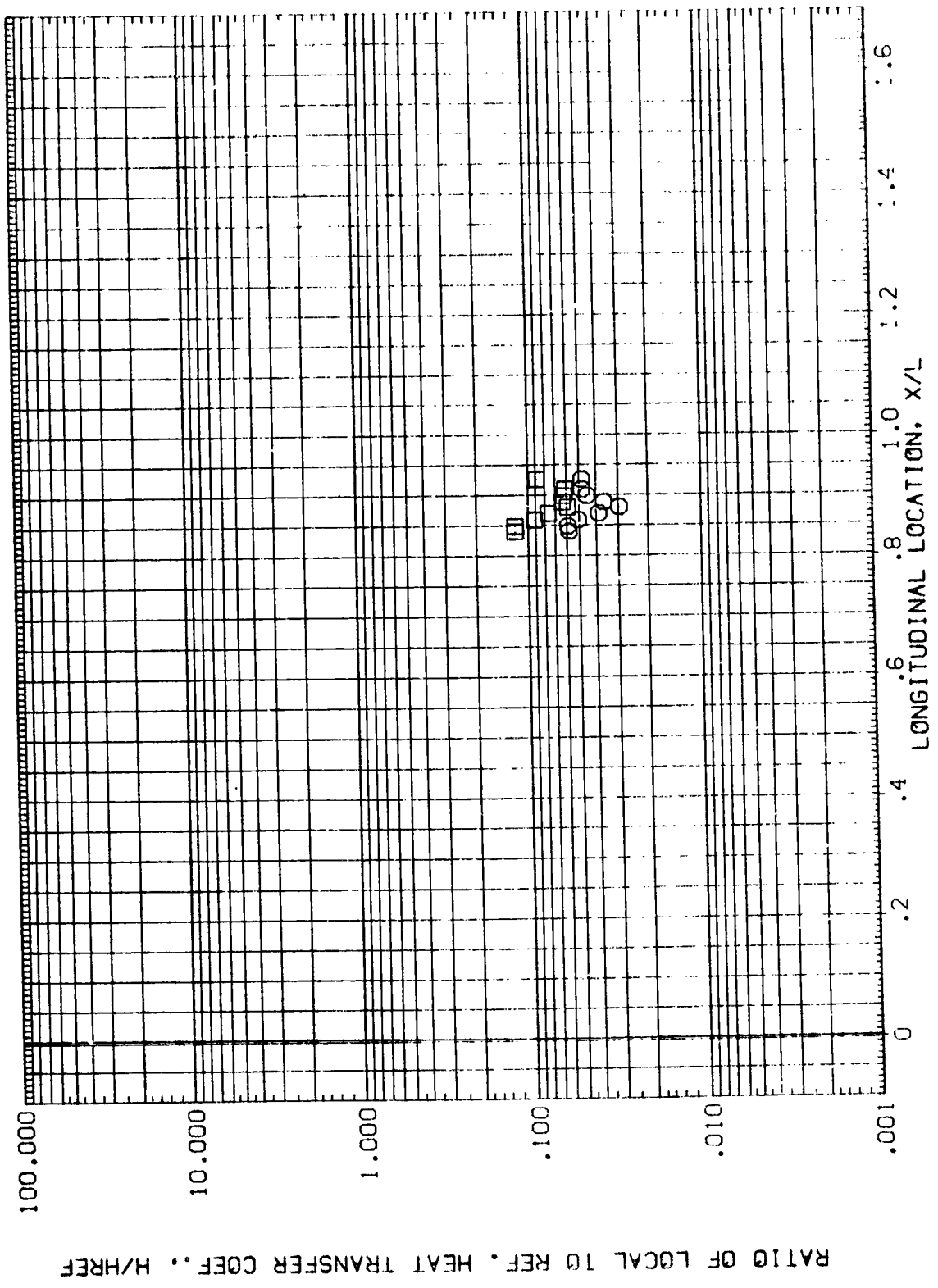


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 125.400

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFI5)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI1)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK    EXT TANK  
 ALPHA    BETA    RN/L  
 -5.000    .000    5.000  
 -5.000    -5.000    5.000

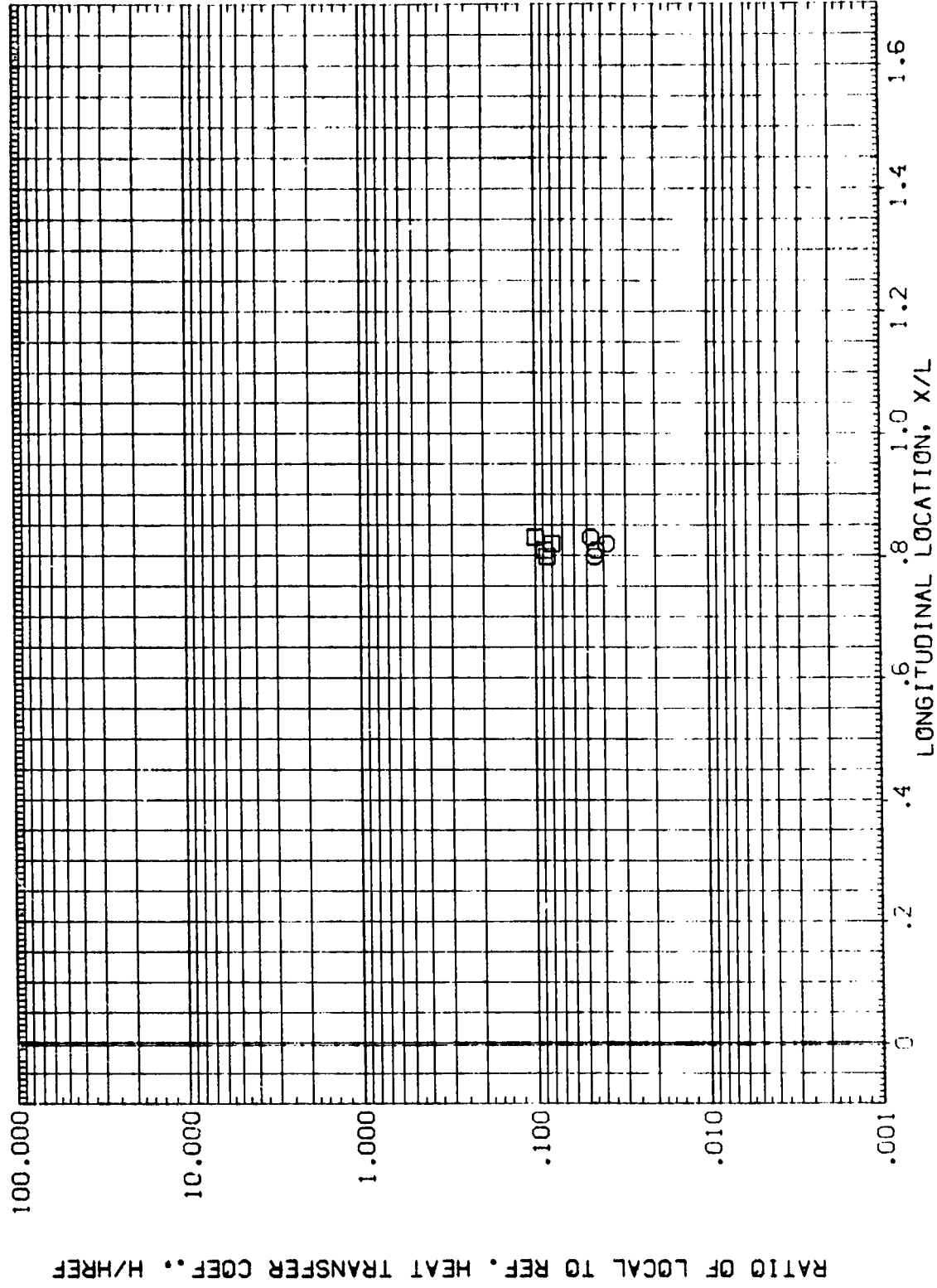


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.390    HAW/OT    .900    PHI = 129.300

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFI5)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 (RNBFI1)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    -5.000    5.000

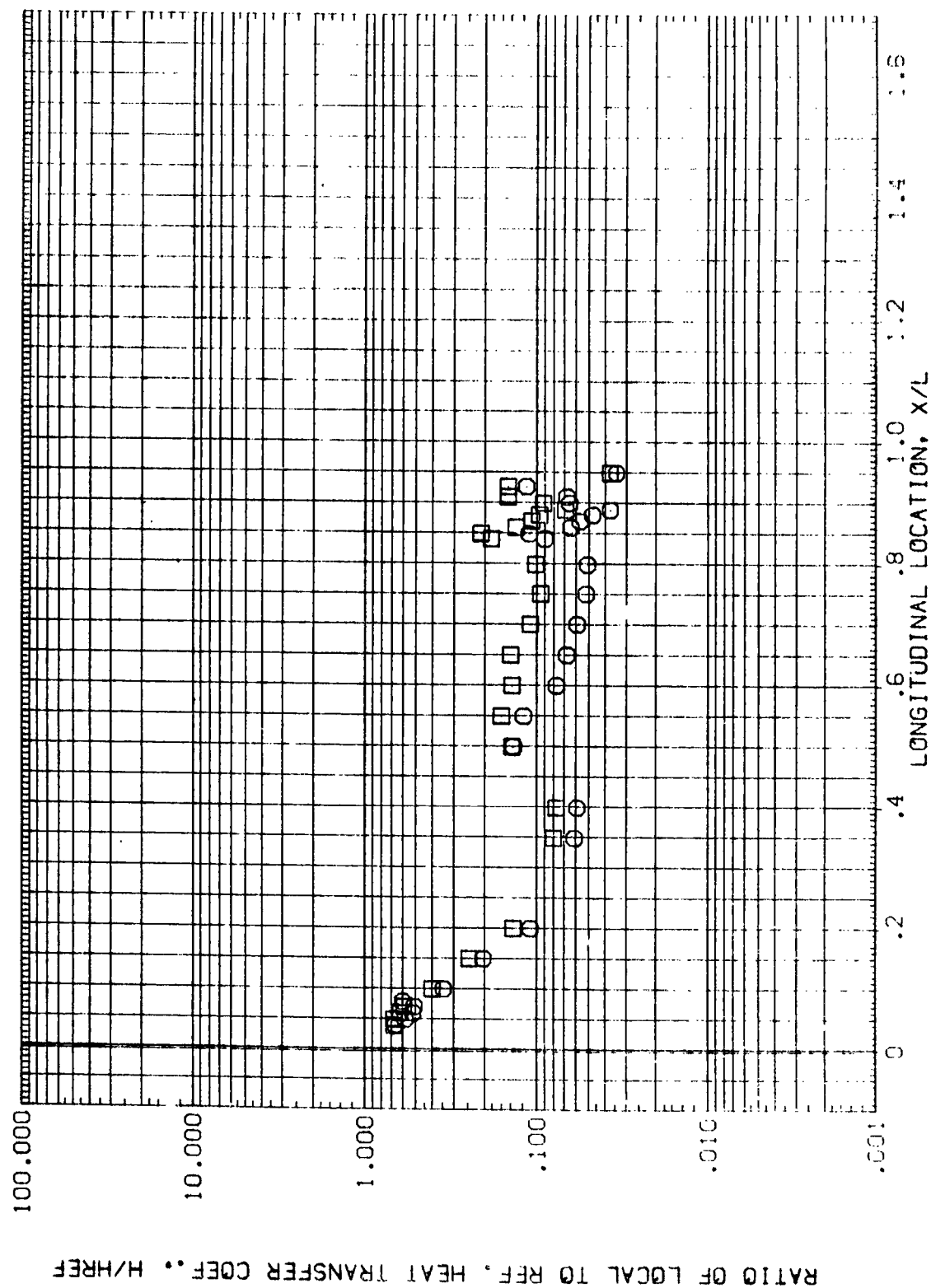


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HIT = .900    PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RV/L  
 (RNBFI5)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 (RNBFI1)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    -5.000    5.000

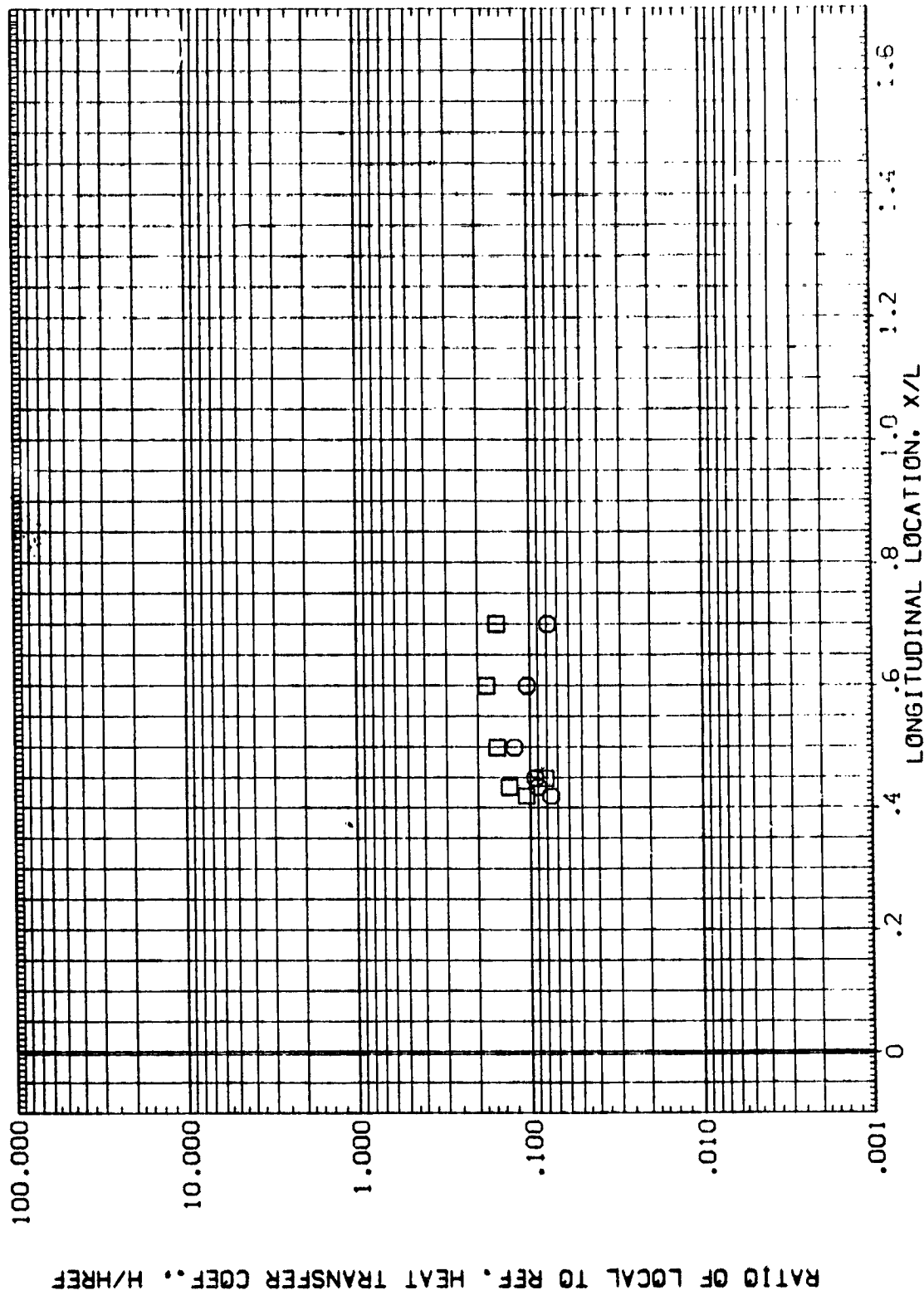


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RMBF15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RMBF11) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK EXT TANK  
 ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 -5.000 5.000

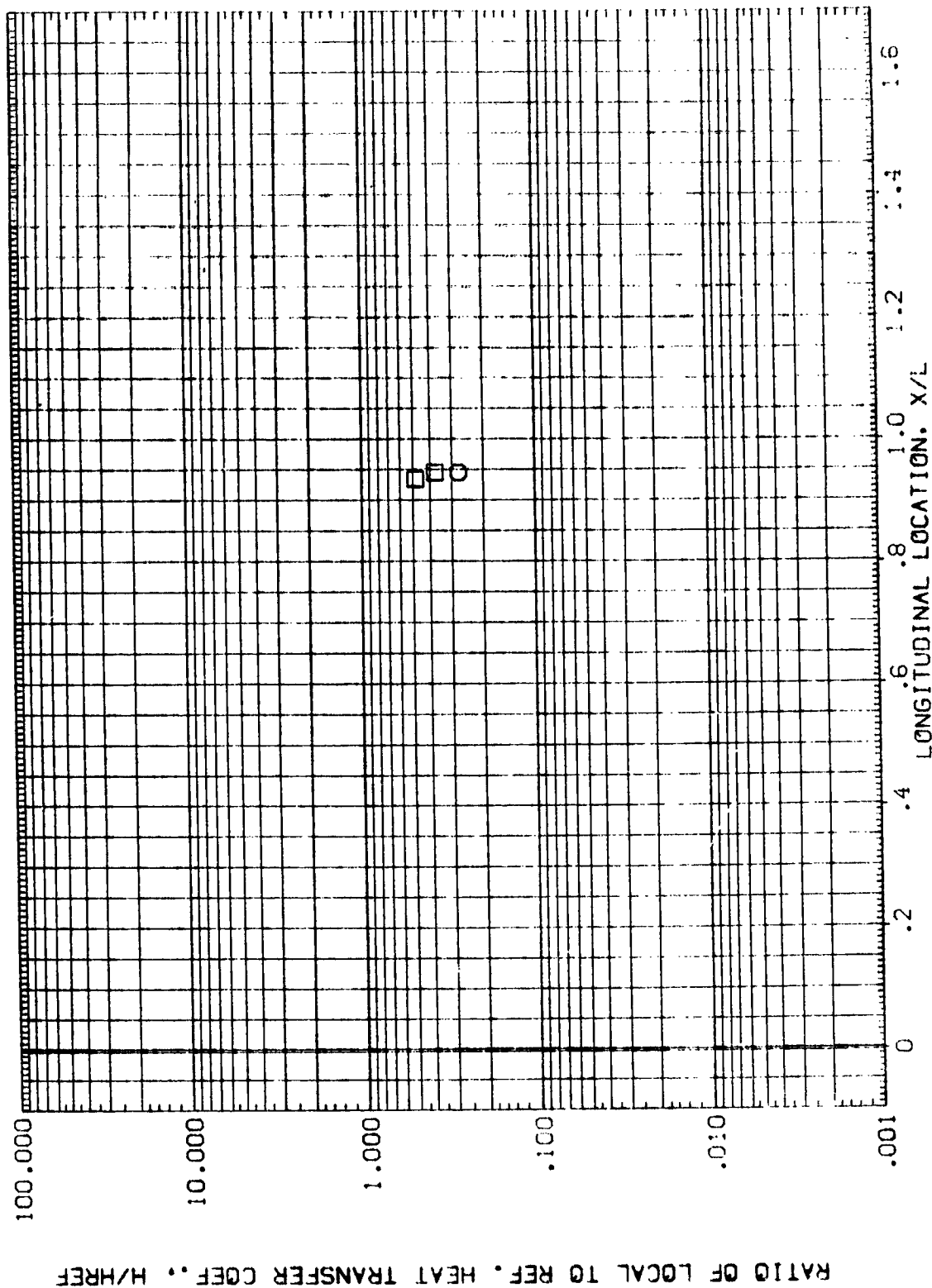


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL: CONFIGURATION DESCRIPTION:  
 (RUBF11) [ ] ARC3.5-211(IH48)OT /NIPPLE/P/IRIP  
 (RUBF11) [ ] ARC3.5-211(IH48)OT /NIPPLE/P/IRIP

EXT TANK EXT TANK  
 ALPHA -5.000 -5.000  
 BETA .000 -5.000  
 RN/L 5.000 5.000

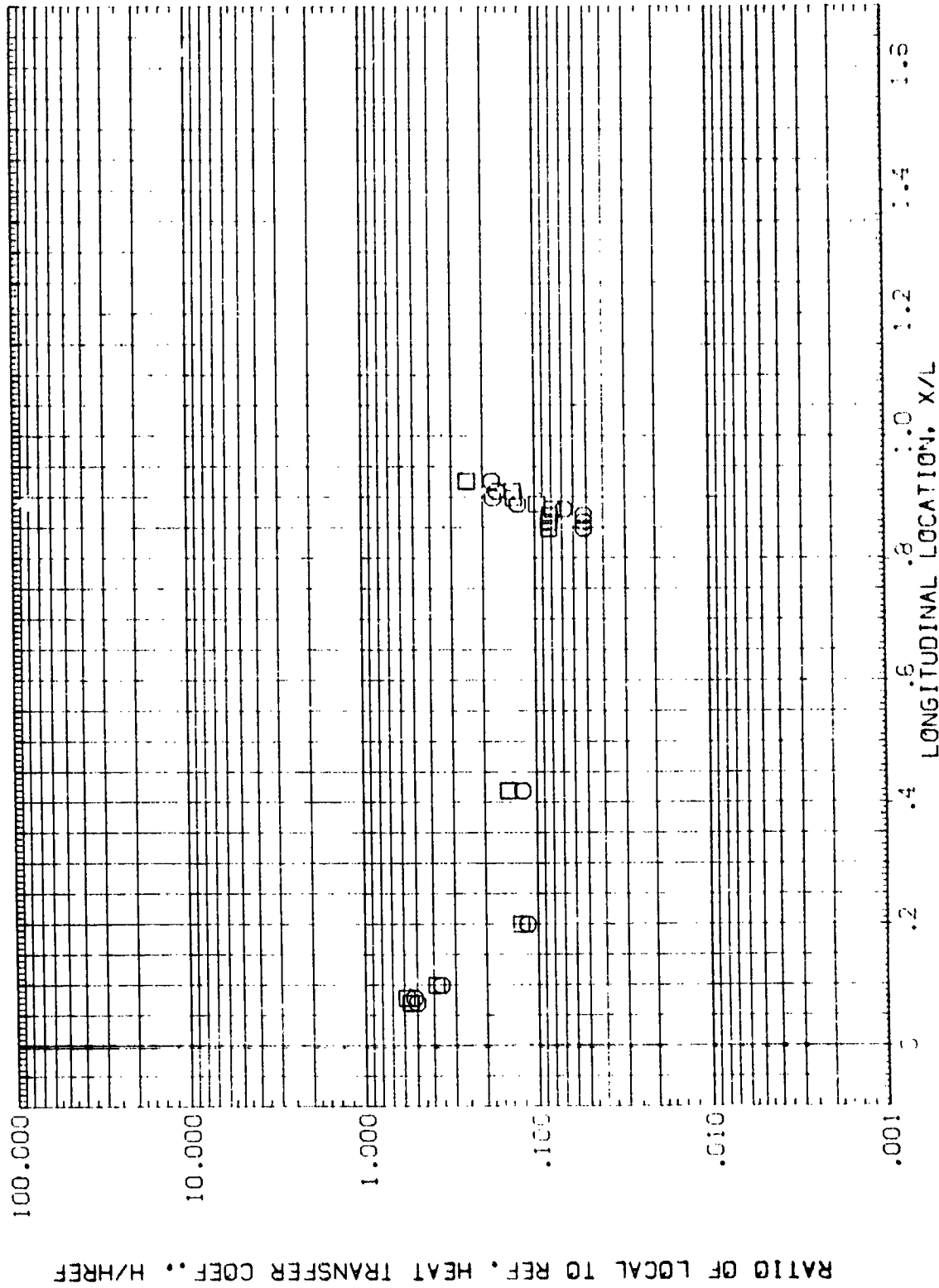


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.000  $h_{\infty}/h^*$  = .900  $P_{\infty}/P^*$  = .157.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA F<sub>0.2</sub>  
 (R4BF15) ARC3.5-211(1H48)OT NIPPLE/P/TRIP -5.000 .000 5.000  
 (R4BF11) ARC3.5-211(1H48)OT NIPPLE/P/TRIP -5.000 -5.000 5.000

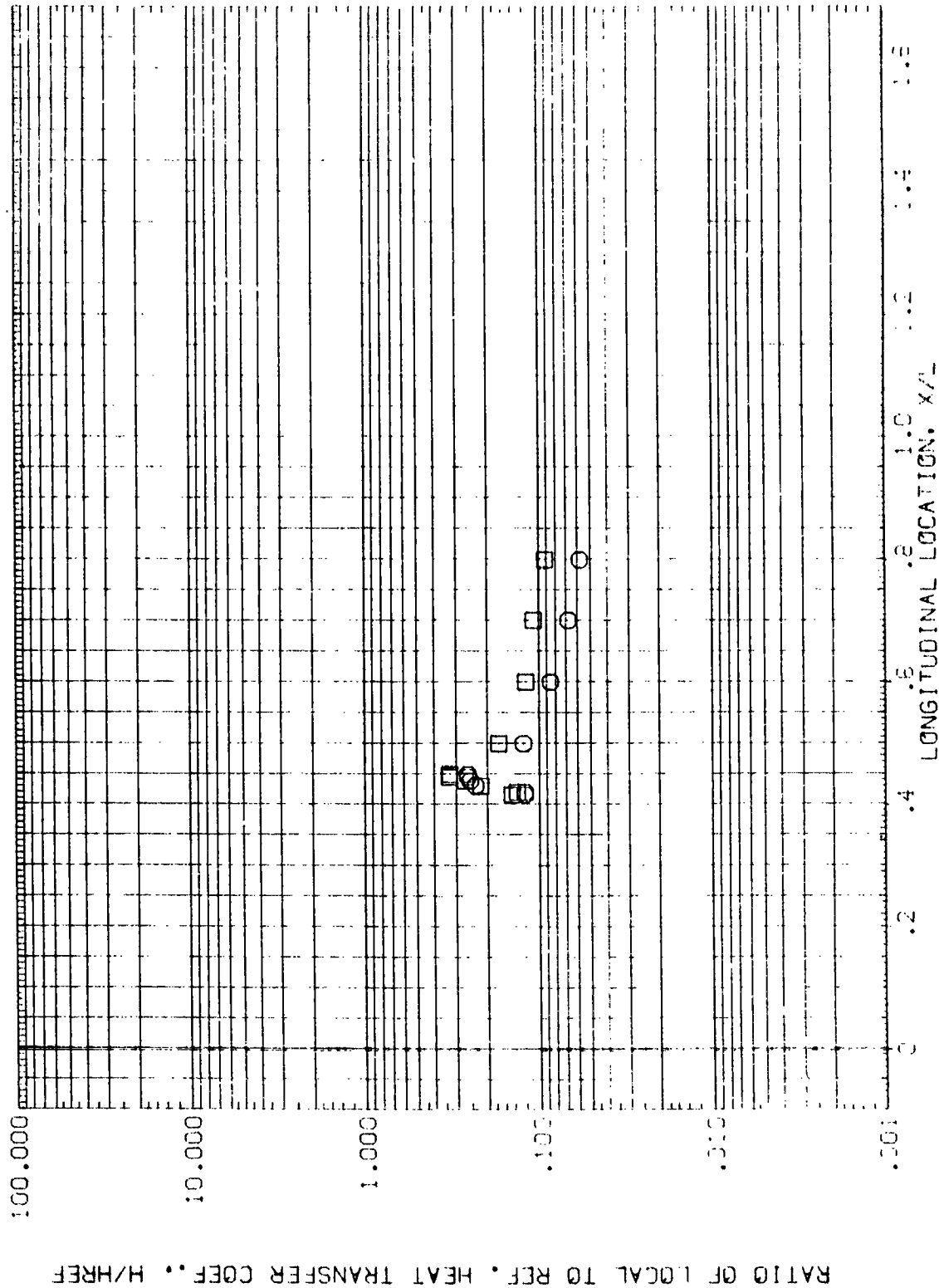


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 H/W/HTE = .300 PHI = 163.120

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R19F15) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (R19F11) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK EXT TANK  
 ALPHA BETA RN/L  
 -5.000 5.000  
 -5.000 5.000

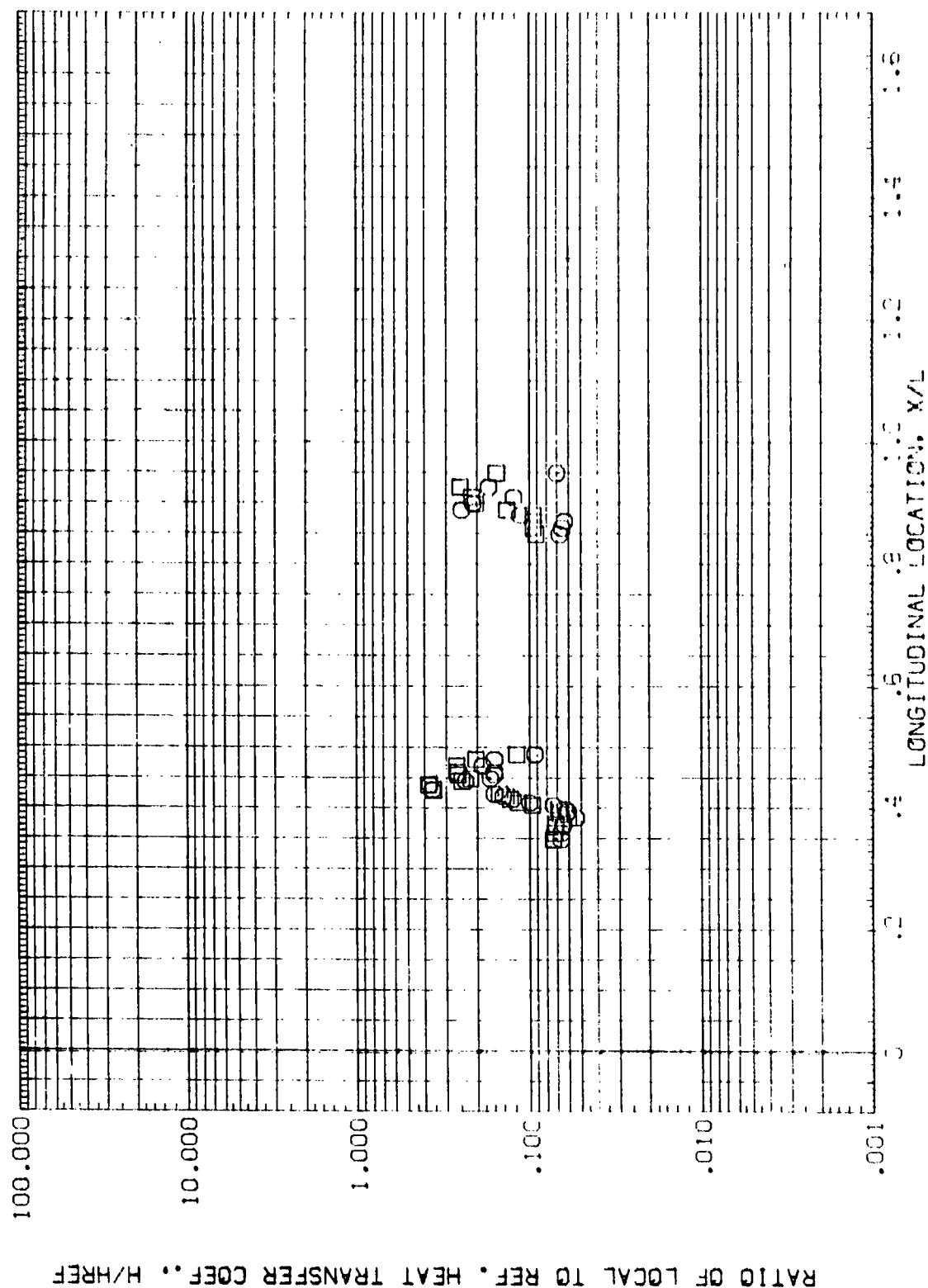


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 P4/P1 = 0.000 P4/P1 = 168.000

DATA SET SYMBL. CONFIGURATION DESCRIPTION ALPHA BETA Rm/L

ARC3.5-211111H48JOT /NIPPLE/P/TRIP

EXT TANK

EXT TANK

5.000

-5.000

-5.000

EXT TANK

ARC3.5-211111H48JOT /NIPPLE/P/TRIP

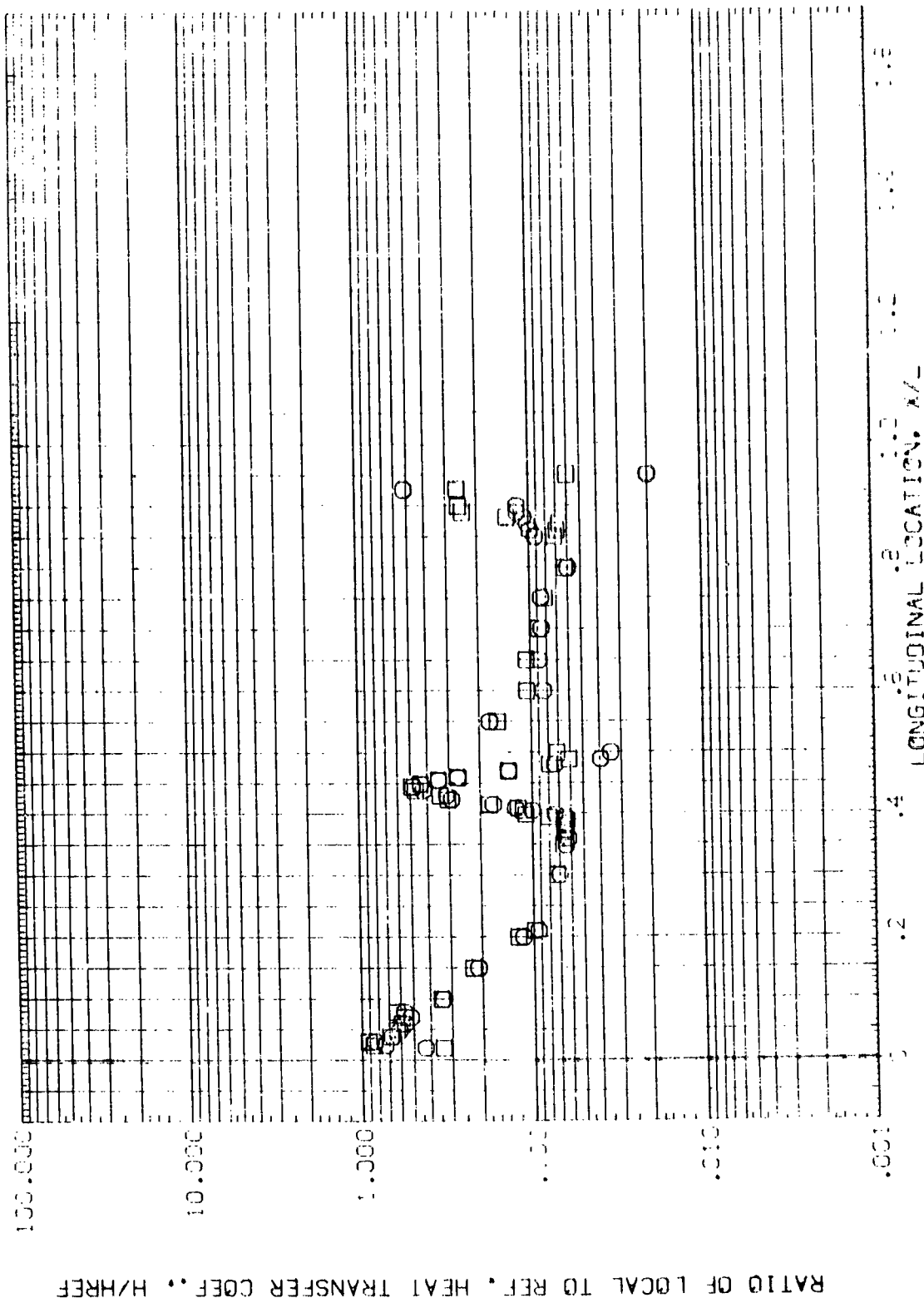


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

NACH = 5.200 HAW/HT = .900 P-1 = 180.000

5.000 4.00

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNF15)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    .000    5.000  
 (RNF11)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    -5.000    -5.000    5.000

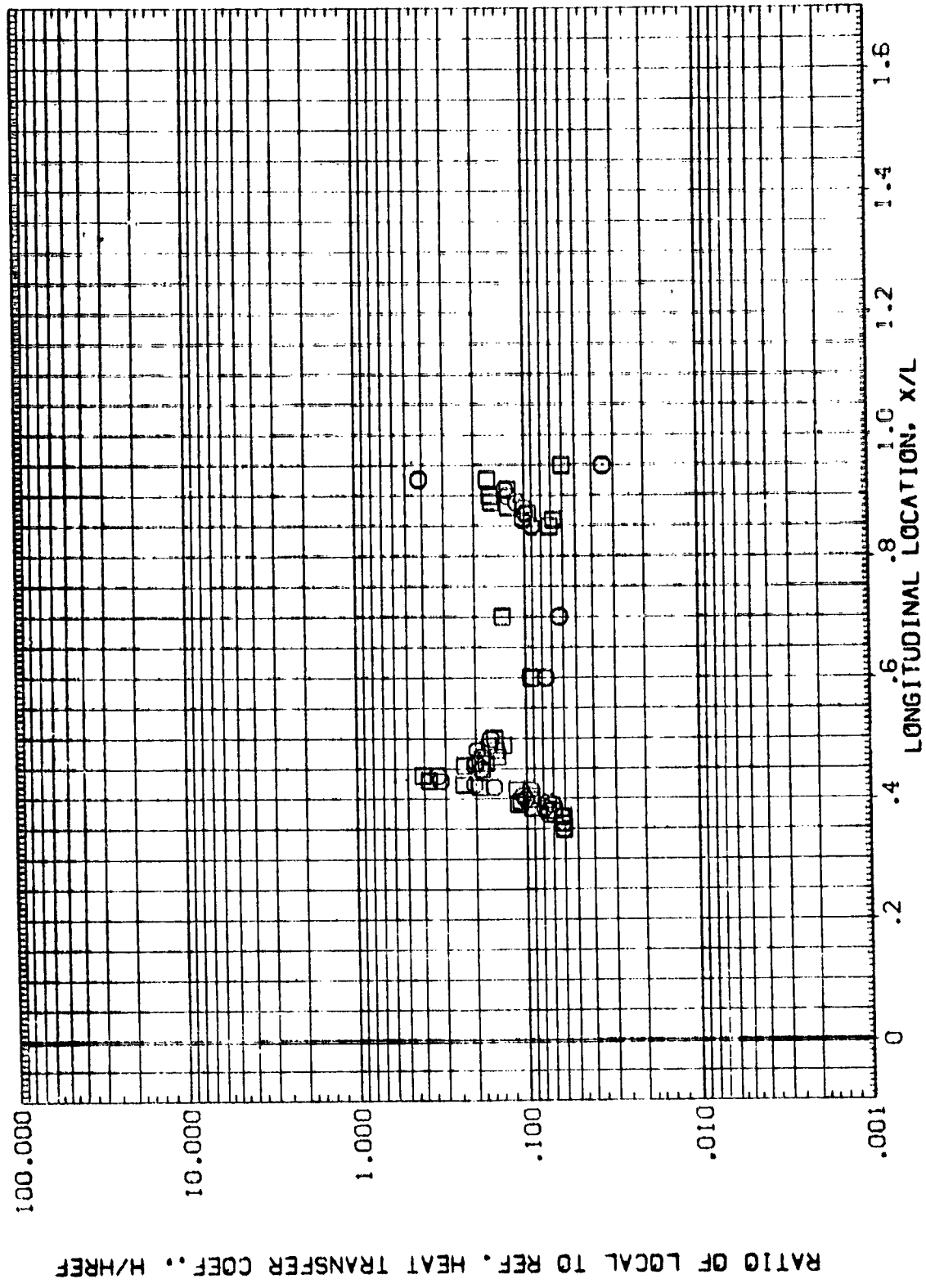


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 191.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA PR

(RNGF15) ARC3.5-211(1H48)OT /NIPPLE/P/TRIP  
(RNGF11) ARC3.5-211(1H48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK

-5.000  
-5.000

5.000  
5.000

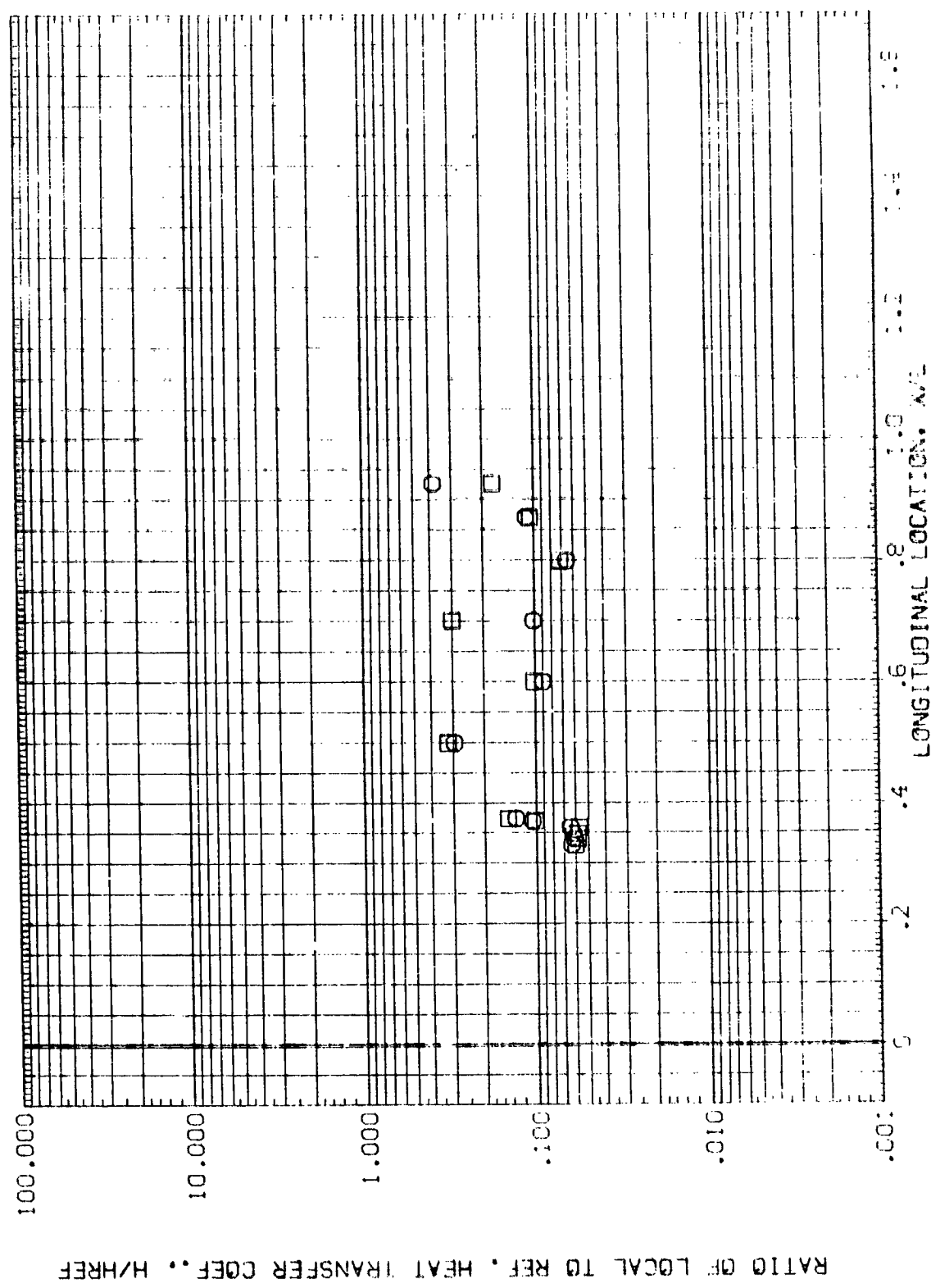


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 197.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      EXT TANK      ALPHA      BETA      RN/L  
 (RNF15)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      EXT TANK      -5.000      .000      5.000  
 (RNF11)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      EXT TANK      -5.000      -5.000      5.000

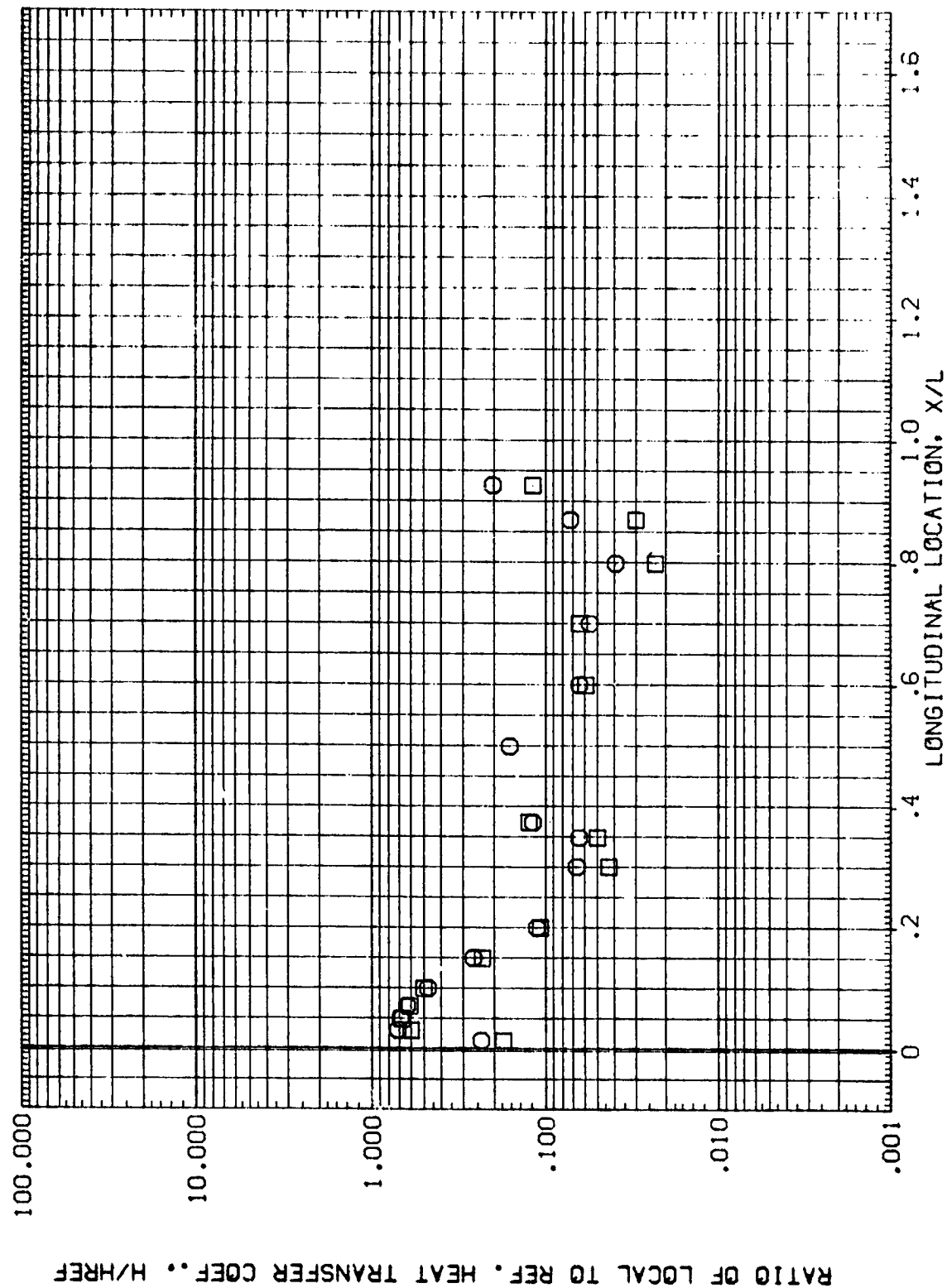


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 209.800

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI5)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      .000      5.000  
 (RNBFI1)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      -5.000      -5.000      5.000

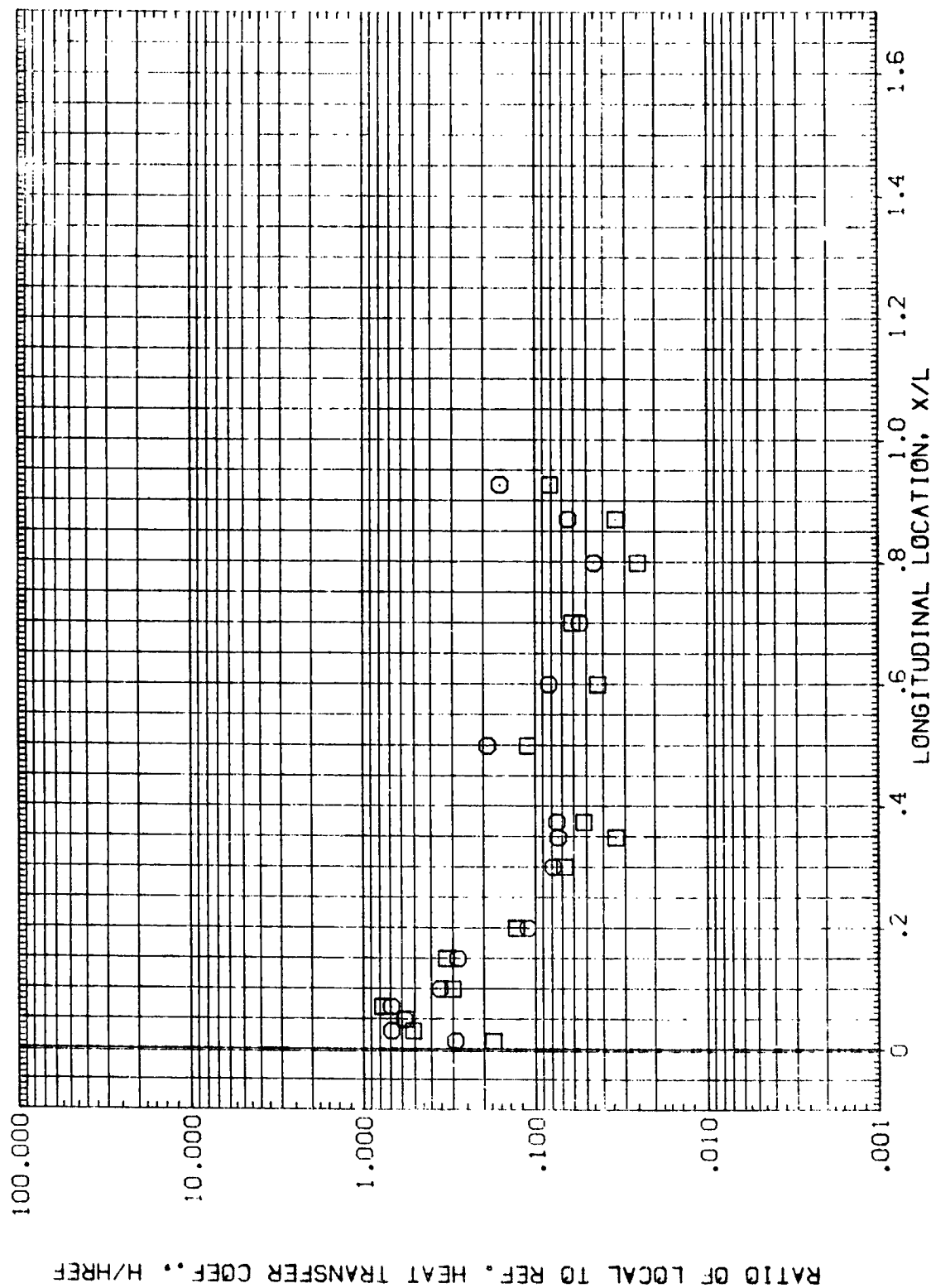


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFI3)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	5.000	.000	5.000
(RNBFI2)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	5.000	-5.000	5.000

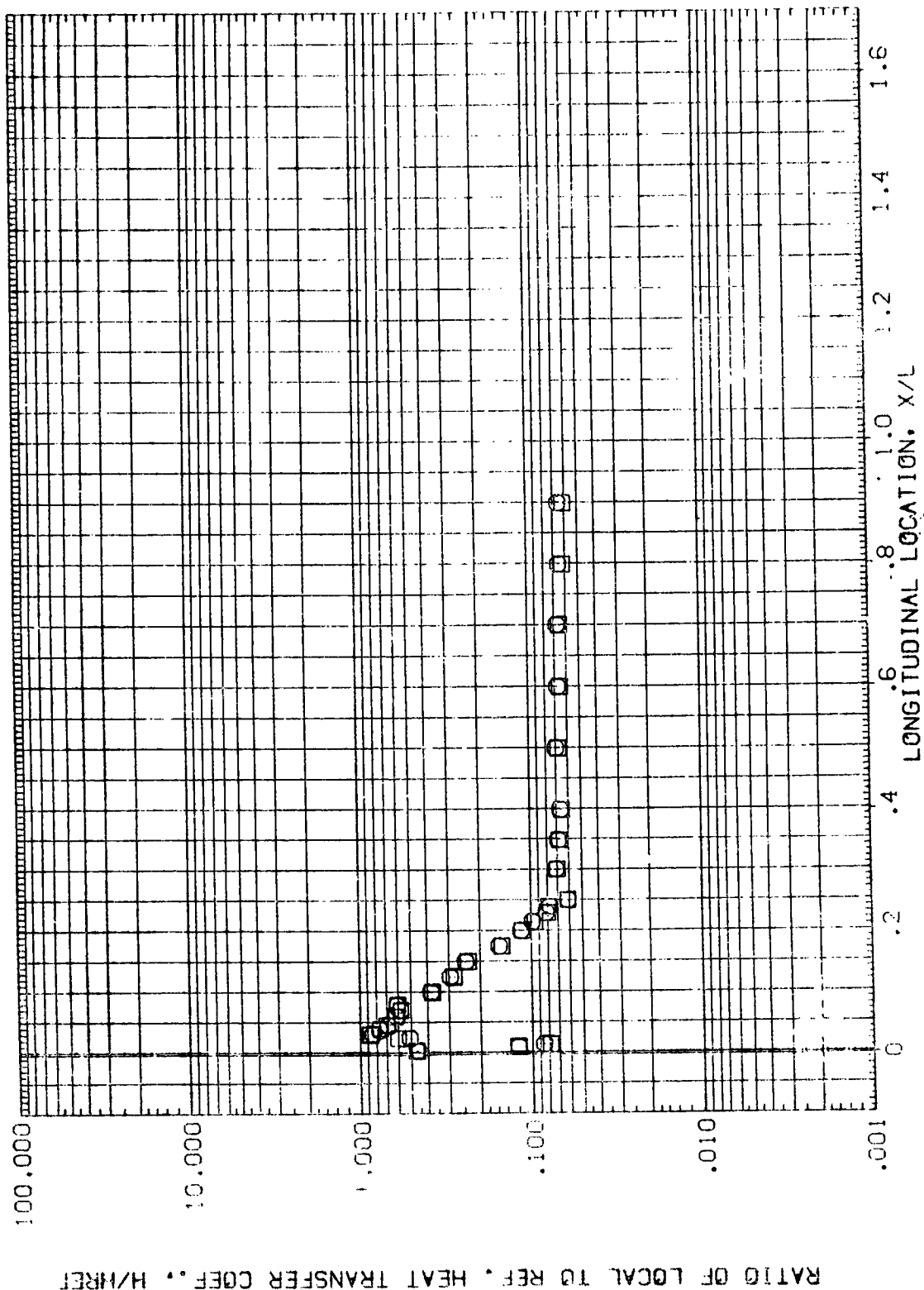
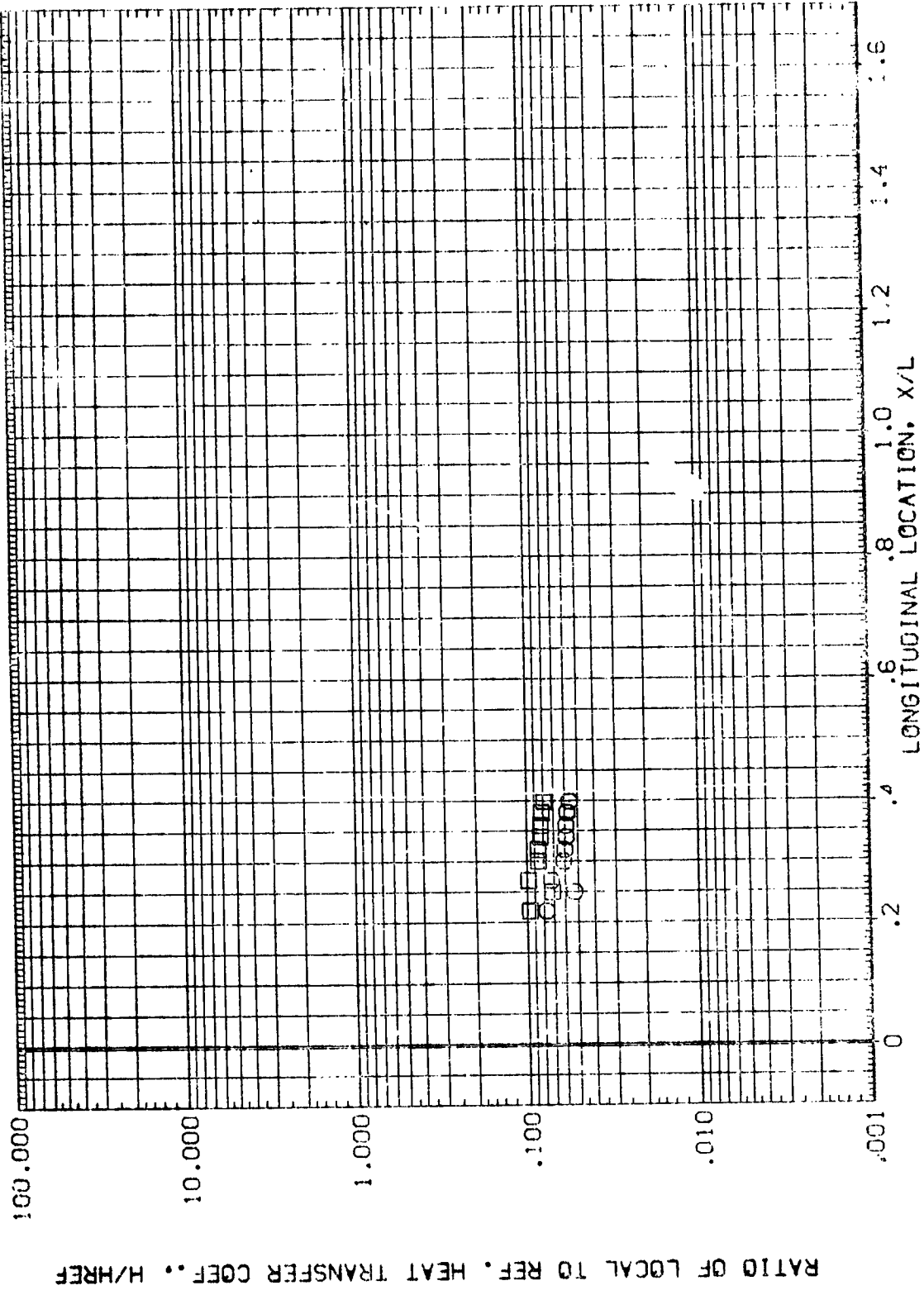


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNBFI3)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK      EXT TANK  
 EXT TANK      EXT TANK

ALPHA      BETA      RN/L  
 5.000      .000      5.000  
 5.000      -5.000      5.000



RATIO OF LOCAL TO REF. HEAT TRANSFER COEFF., H/HREF

FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      H<sub>AW</sub>/H<sub>T</sub> = .900      PHI = 55.000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFI3)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      .000      5.000  
 (RNBFI2)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      -5.000      5.000

EXT TANK  
 EXT TANK

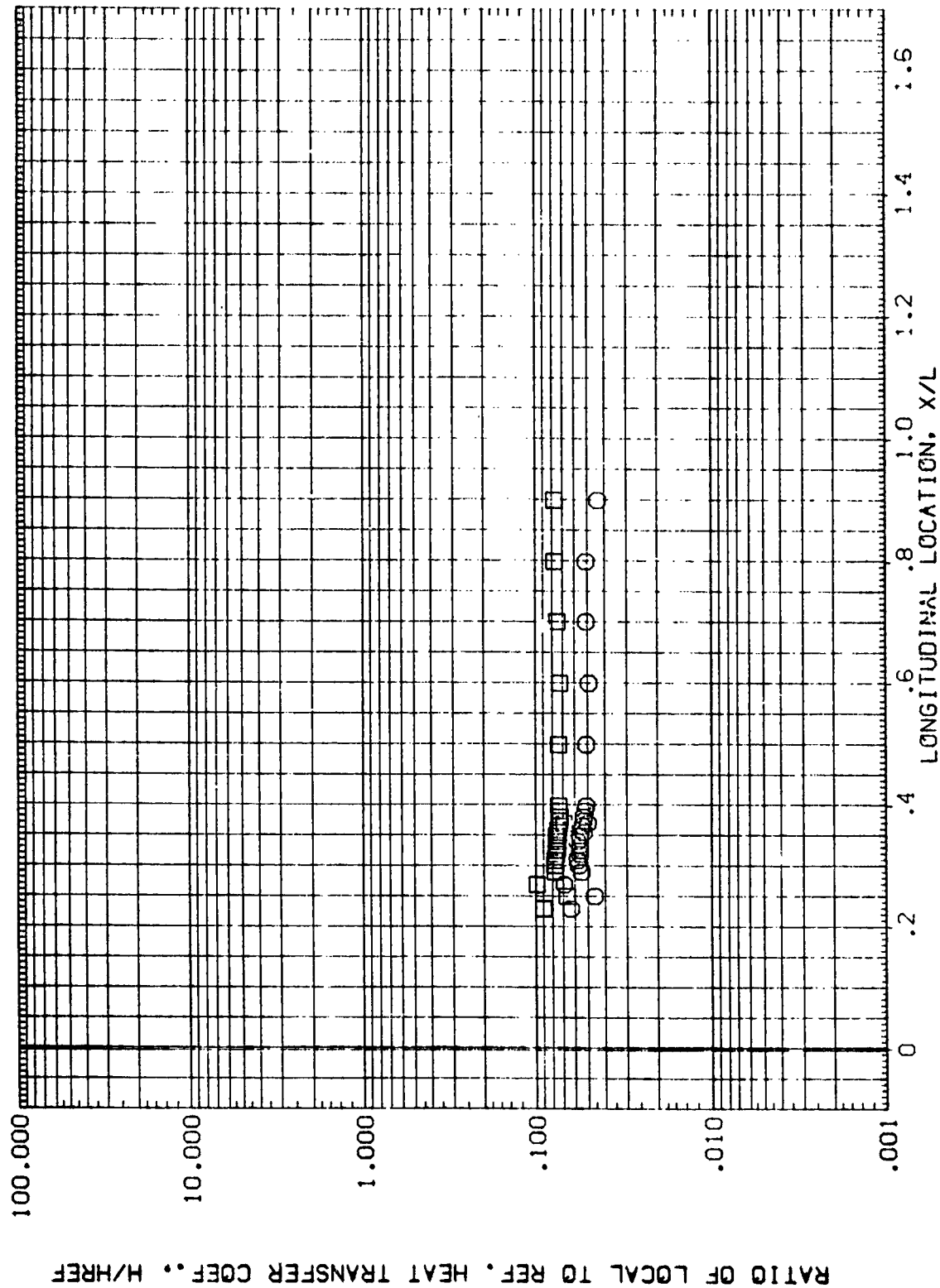


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 67.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFI3) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK EXT TANK  
 ALPHA BETA RN/L  
 5.000 5.000 5.000  
 5.000 -5.000 5.000

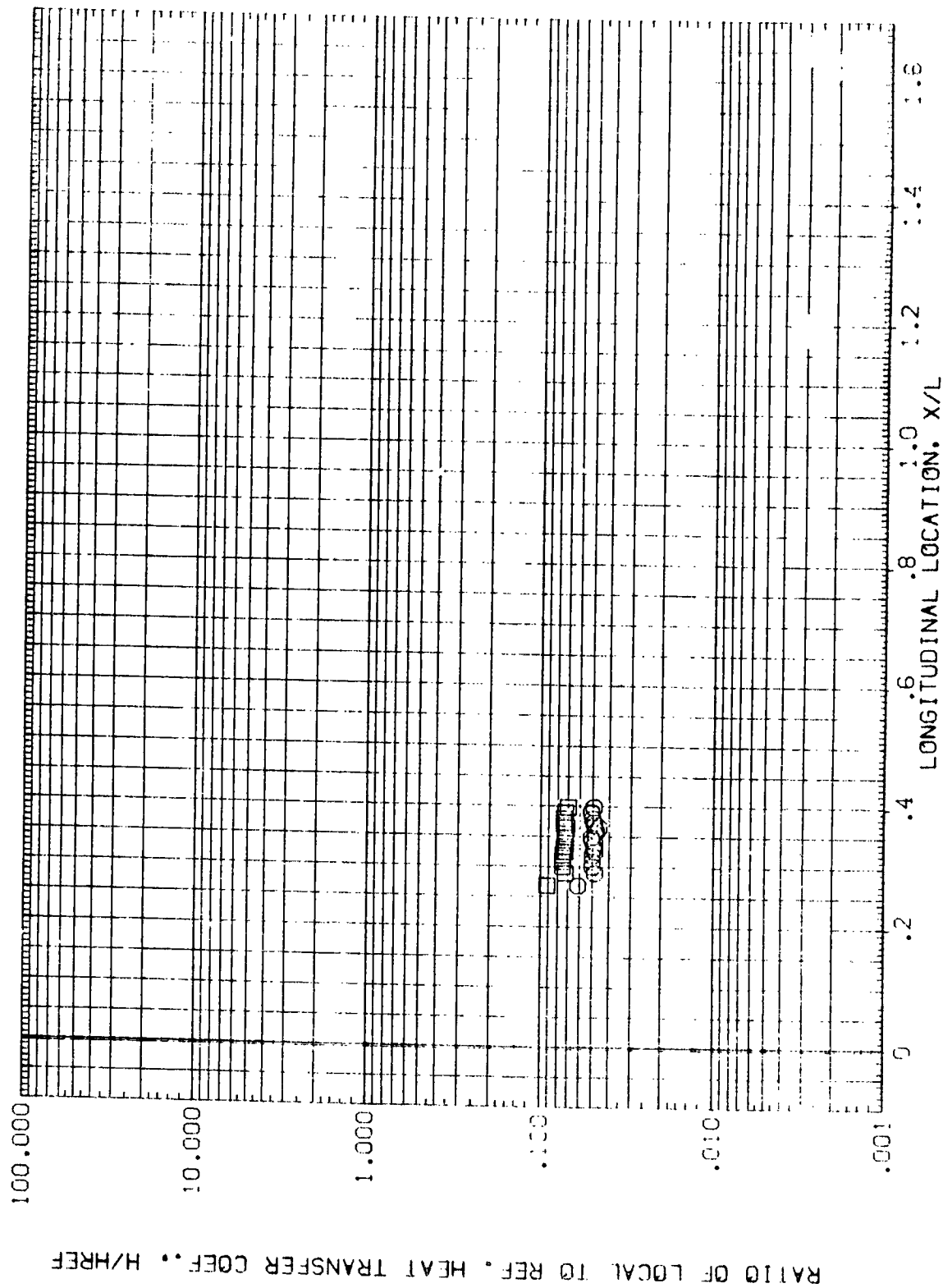


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300  $HAW/HI$  = .900  $PHI$  = 78.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB13)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      .000      5.000  
 (RNB12)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      -5.000      5.000

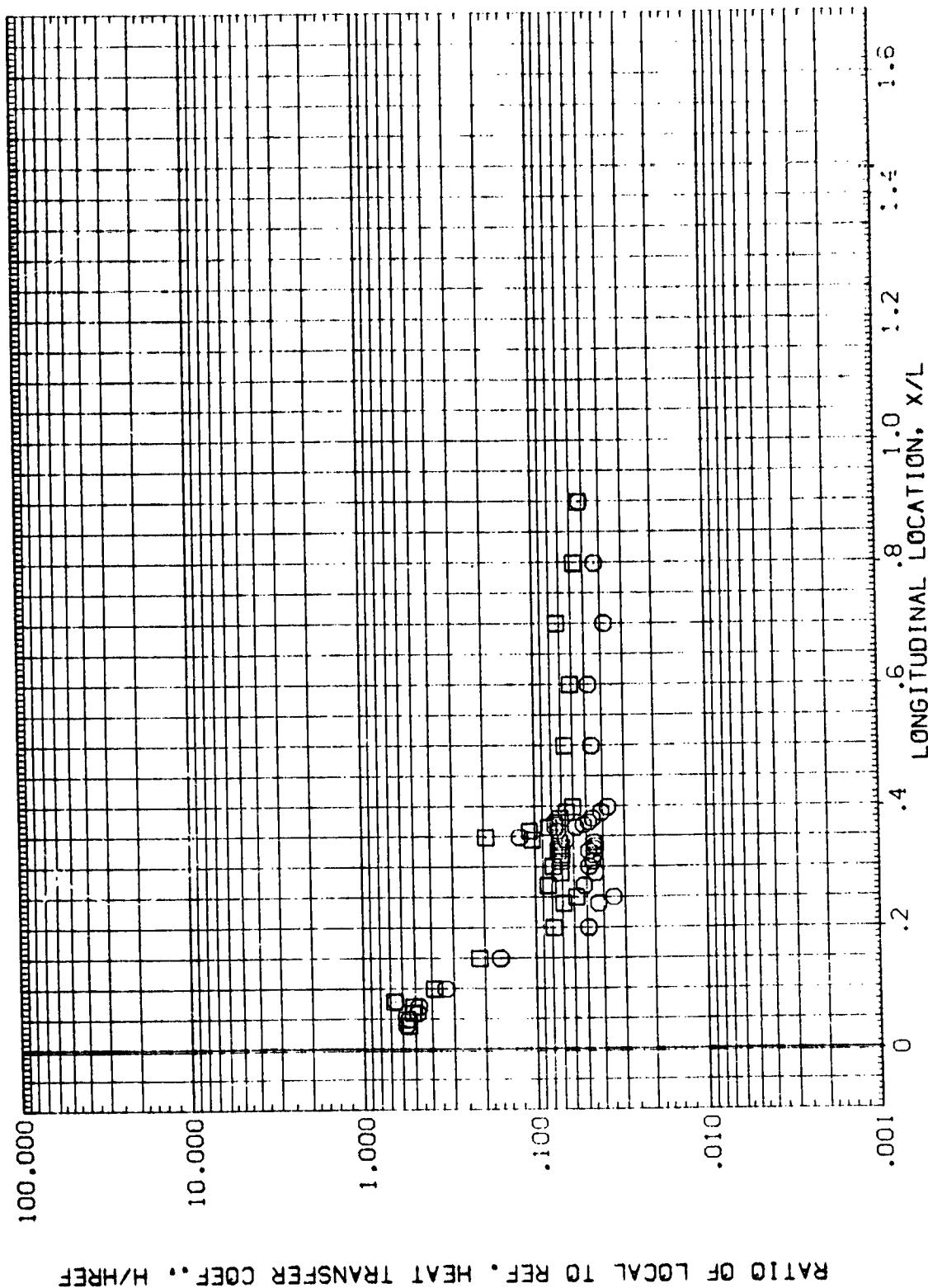


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.330      HAW/HT = .900      PHI = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFI3)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    .000    5.000  
 (RNBFI2)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    -5.000    5.000

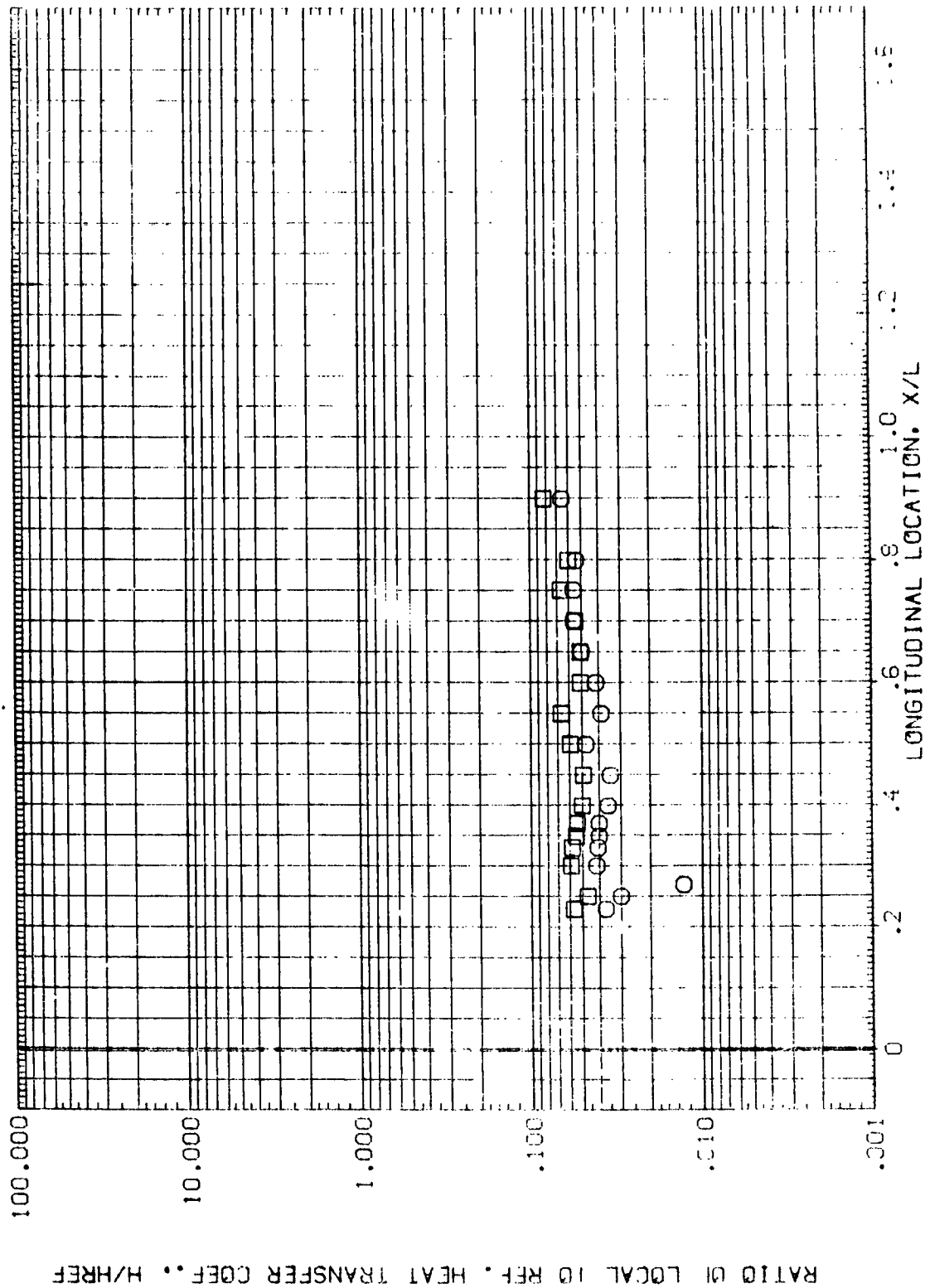


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HTE = .900    PH = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNBFI3)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK      EXT TANK  
 ALPHA      BETA      RN/L  
 5.000      -5.000      5.000

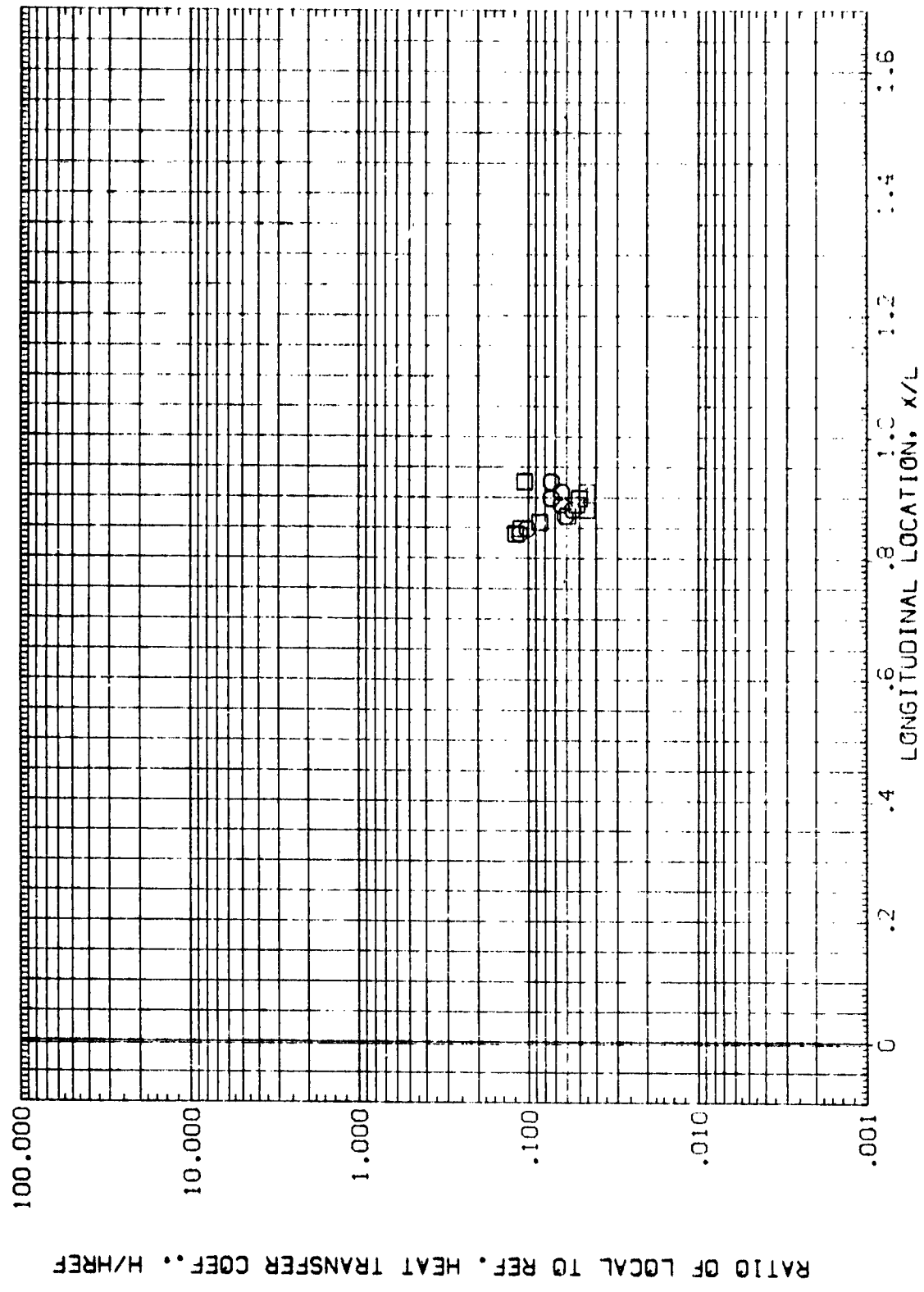


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HTE = .300      P-1 = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFI3)  
(RNBFI2)

ARC3.5-211C(H48)OT /NIPPLE/P/TRIP  
ARC3.5-211C(H48)OT /NIPPLE/P/TRIP

EXT TANK  
EXT TANK

ALPHA BETA RN/L  
5.000 .000 5.000  
5.000 -5.000 5.000

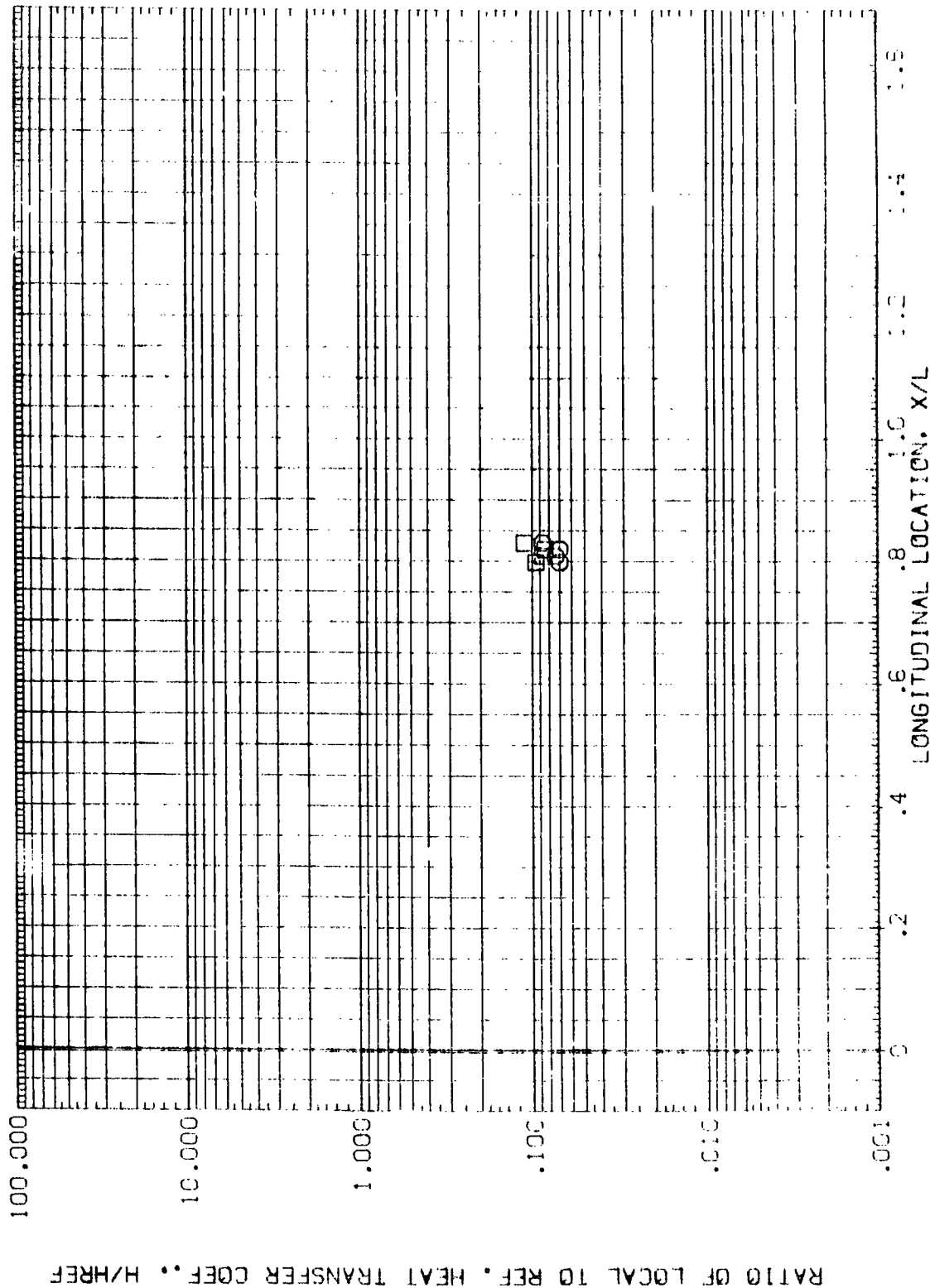


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .300 PHI = 129.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(RNBFI3)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	.000	5.000
(RNBFI2)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

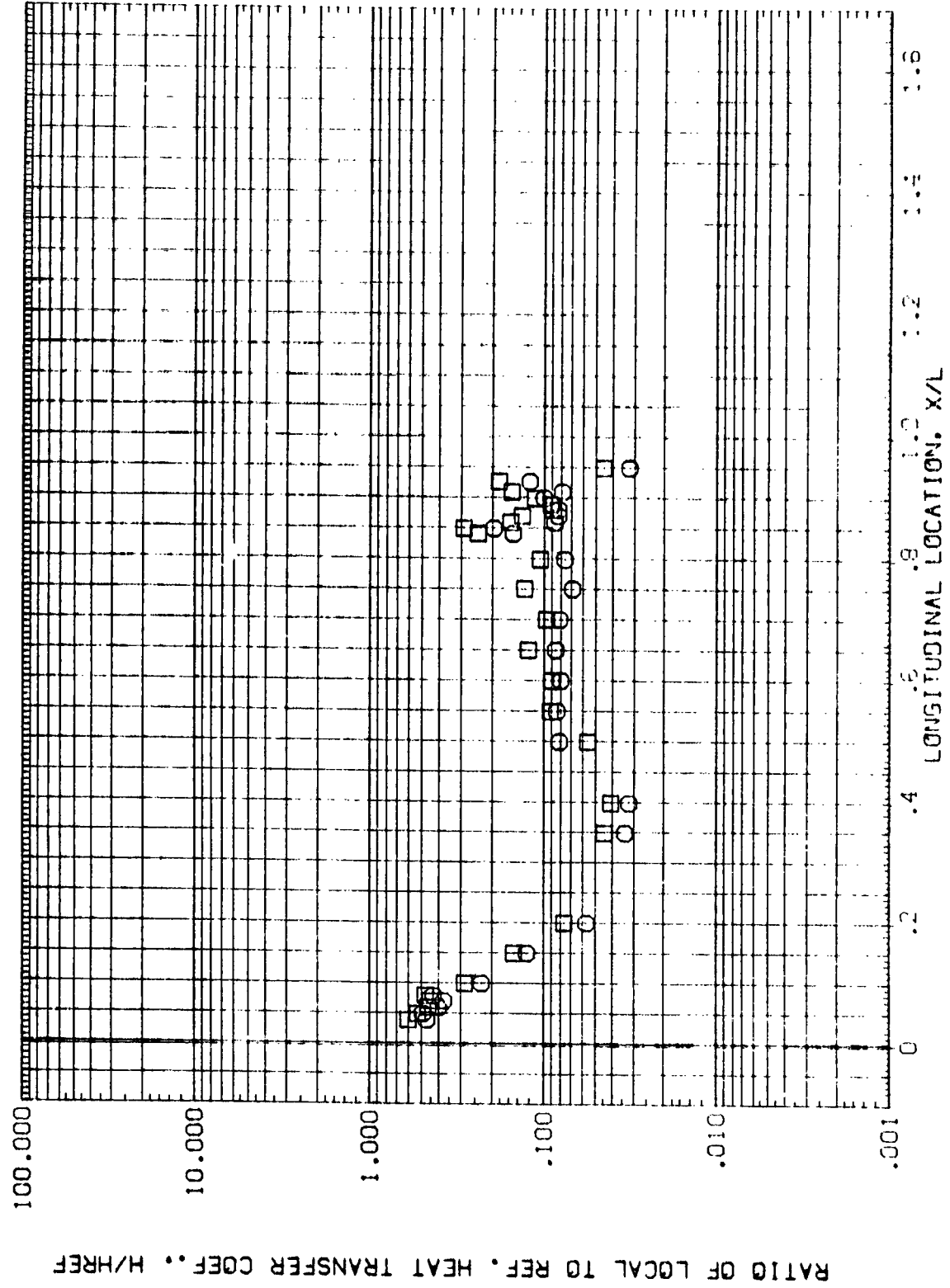


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900  $P_{01} = 135.000$

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RATIO  
 (RNF13)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    .000    5.000  
 (RNF12)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    -5.000    5.000

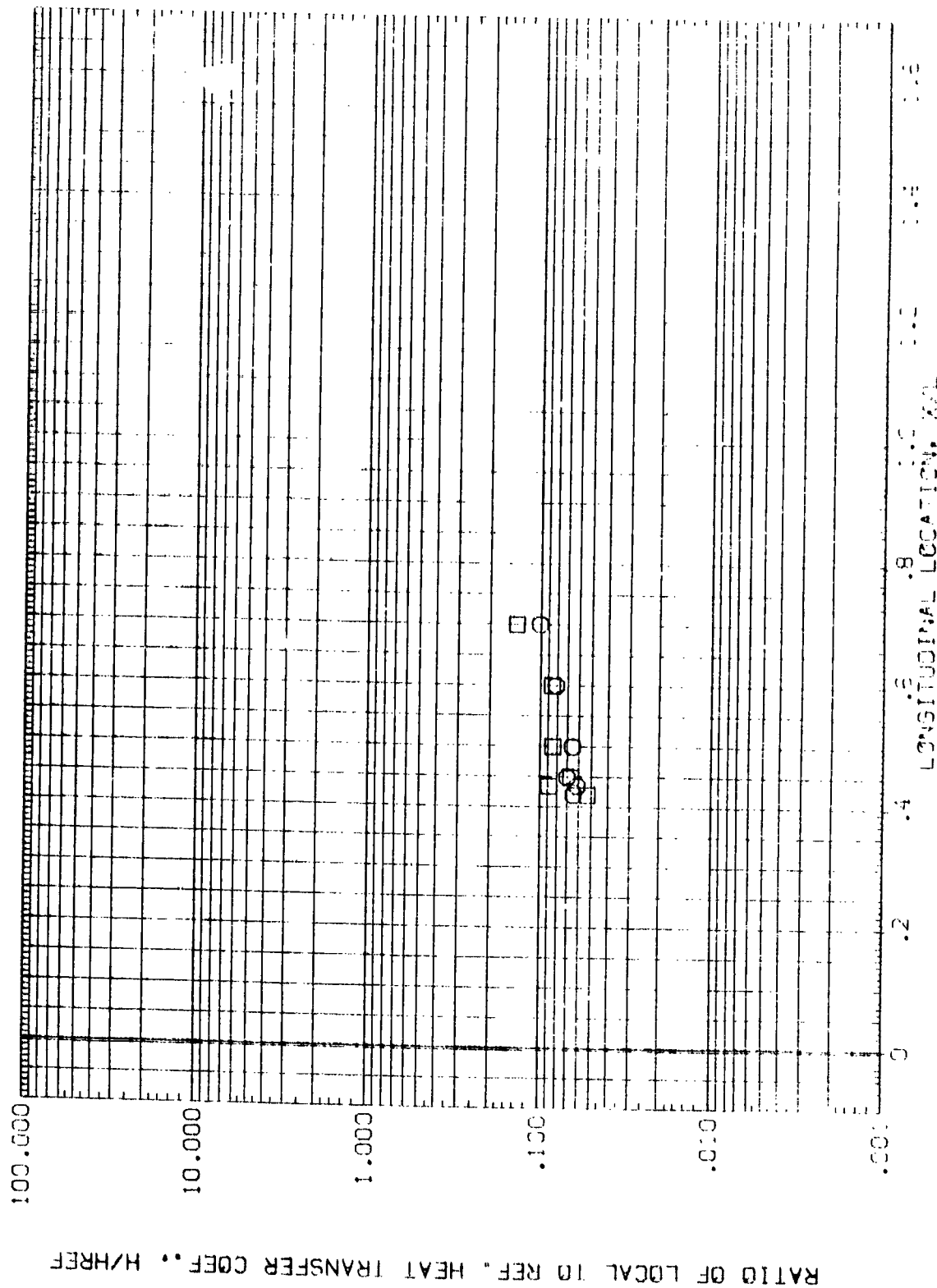


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    P/WALL = 0.000    P/T = 142.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R:3:13) B ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (R:3:12) ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

ALPHA BETA R/L  
 5.000 5.000 5.000  
 -5.000 5.000 5.000

EXT TANK  
 EXT TANK

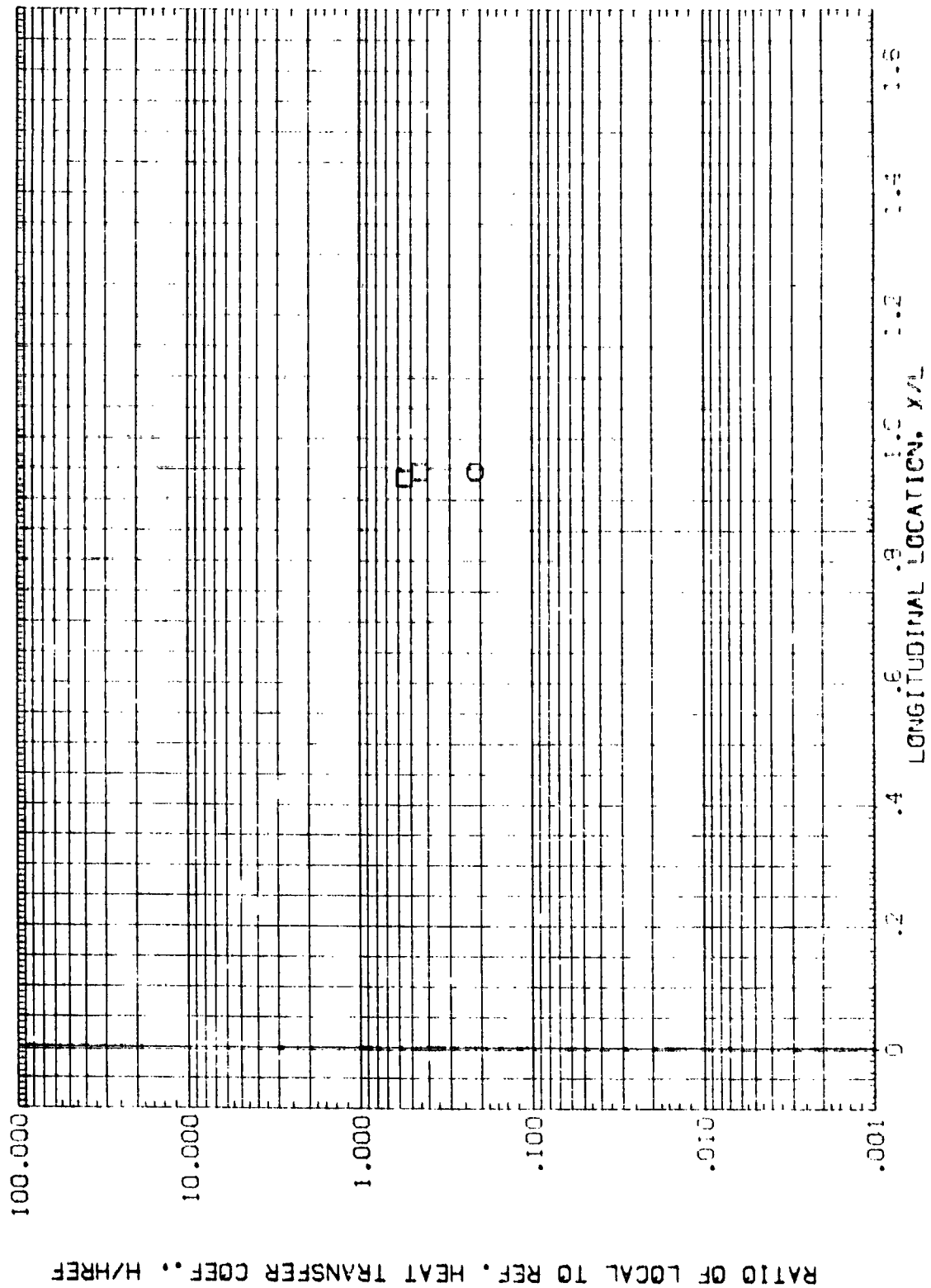


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.000 HAWK/HT = .200 B-1 = 154.320

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA GAMMA  
 (RABF13) ARC3.5-211(H48JOT /NIPPLE/F/IR/P EXT TANK 5.000 -5.000 5.000  
 (RABF12) ARC3.5-211(H48JOT /NIPPLE/P/IR/P EXT TANK 5.000 -5.000 5.000

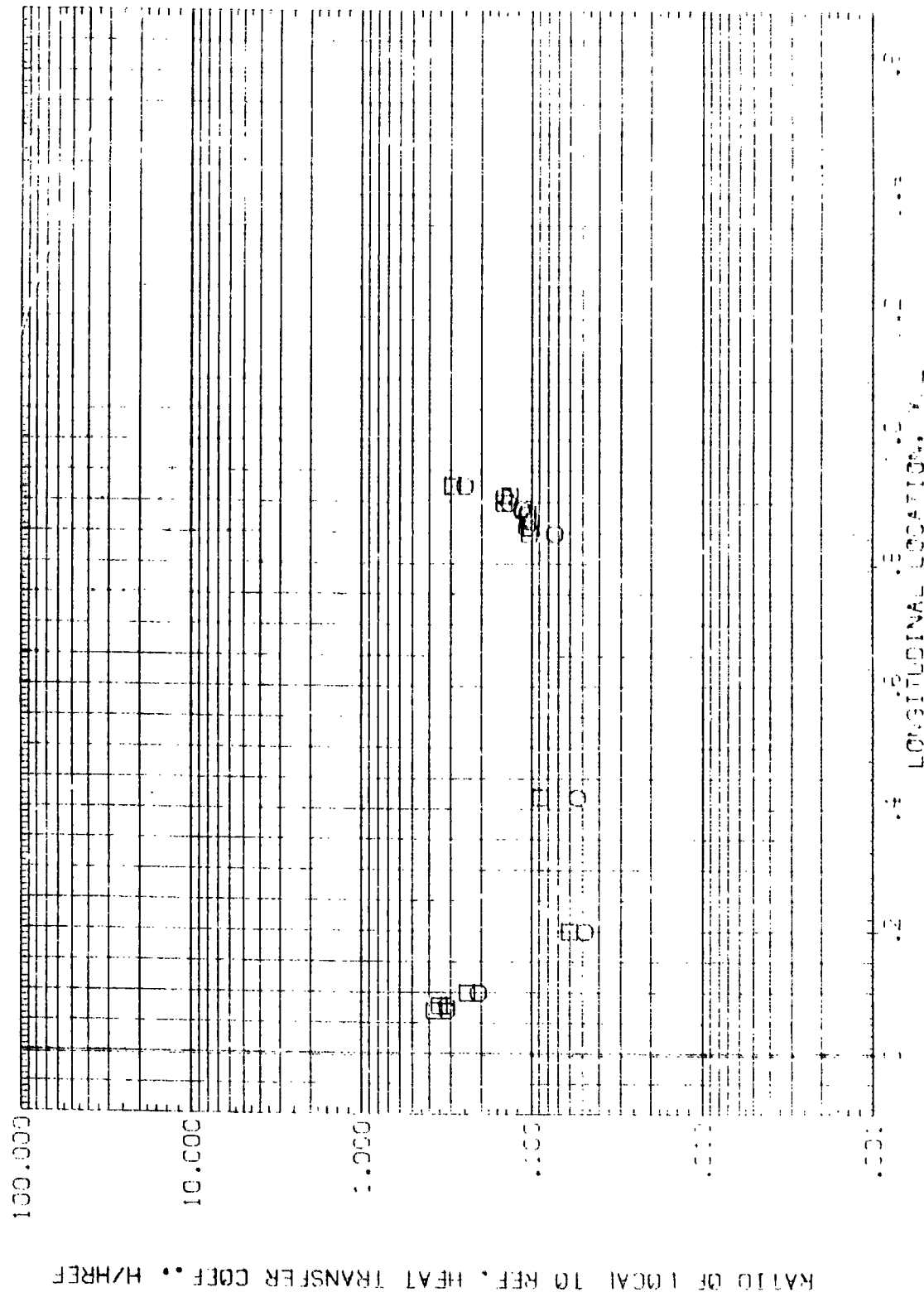


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

ARC3.5-211(H48JOT /NIPPLE/F/IR/P EXT TANK 5.000 -5.000 5.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNBFI3)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (RNBFI2)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK    EXT TANK  
 ALPHA    BETA    RN/L  
 5.000    -5.000    5.000

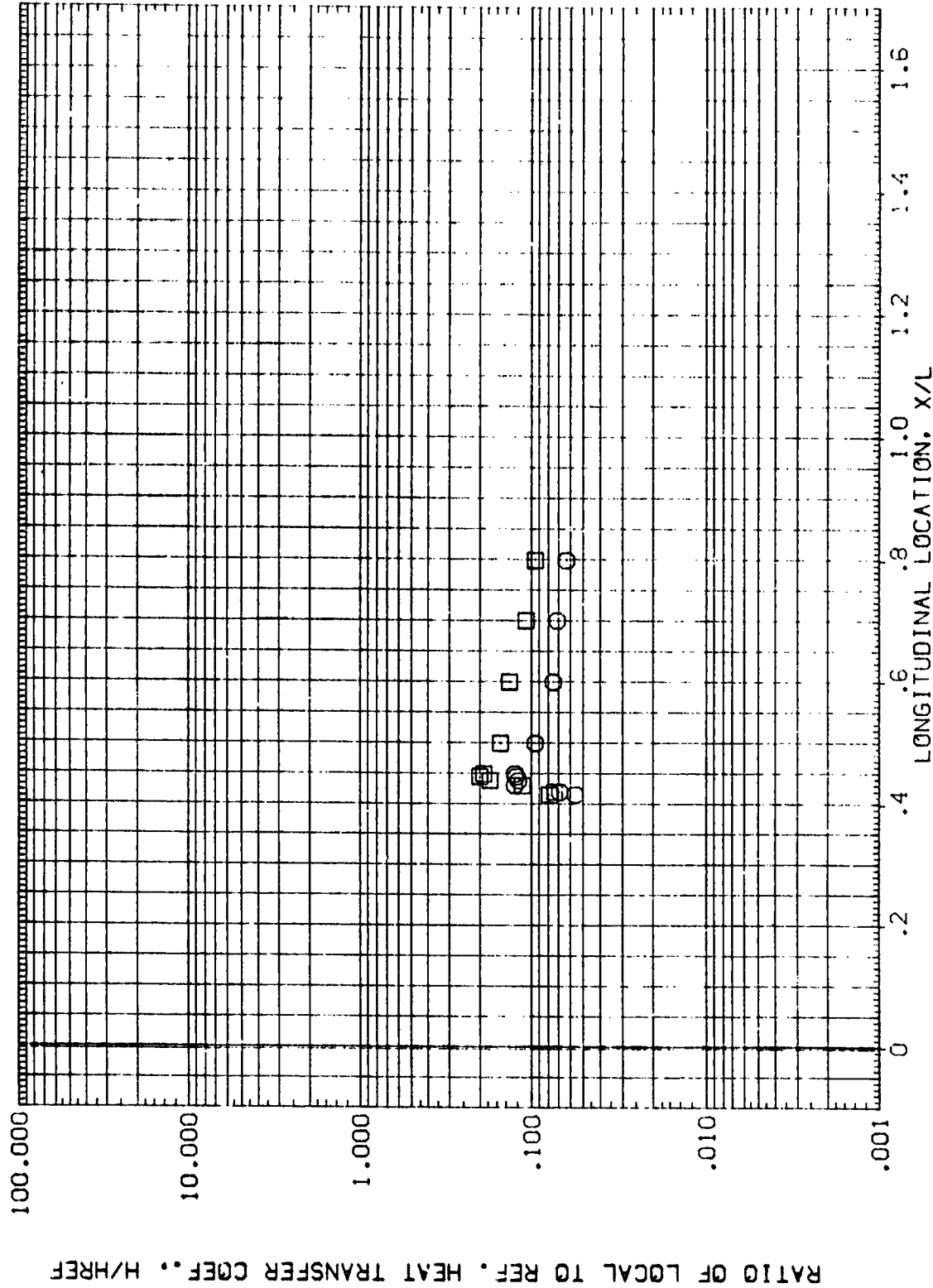


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 163.120

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFI3)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    .000    5.000  
 (RNBFI2)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    -5.000    5.000

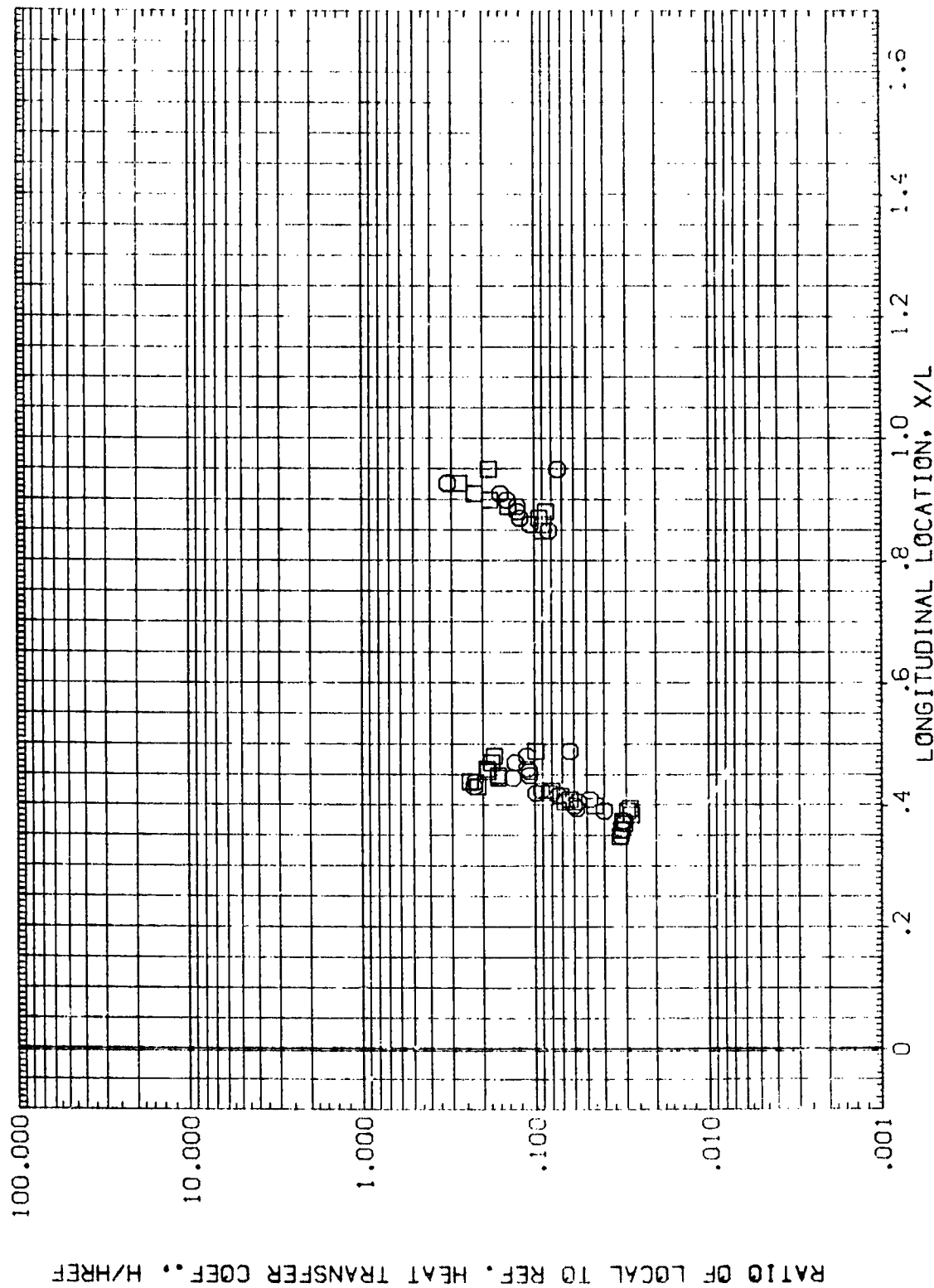


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 168.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB13)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      .000      5.000  
 (RNB12)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      -5.000      5.000

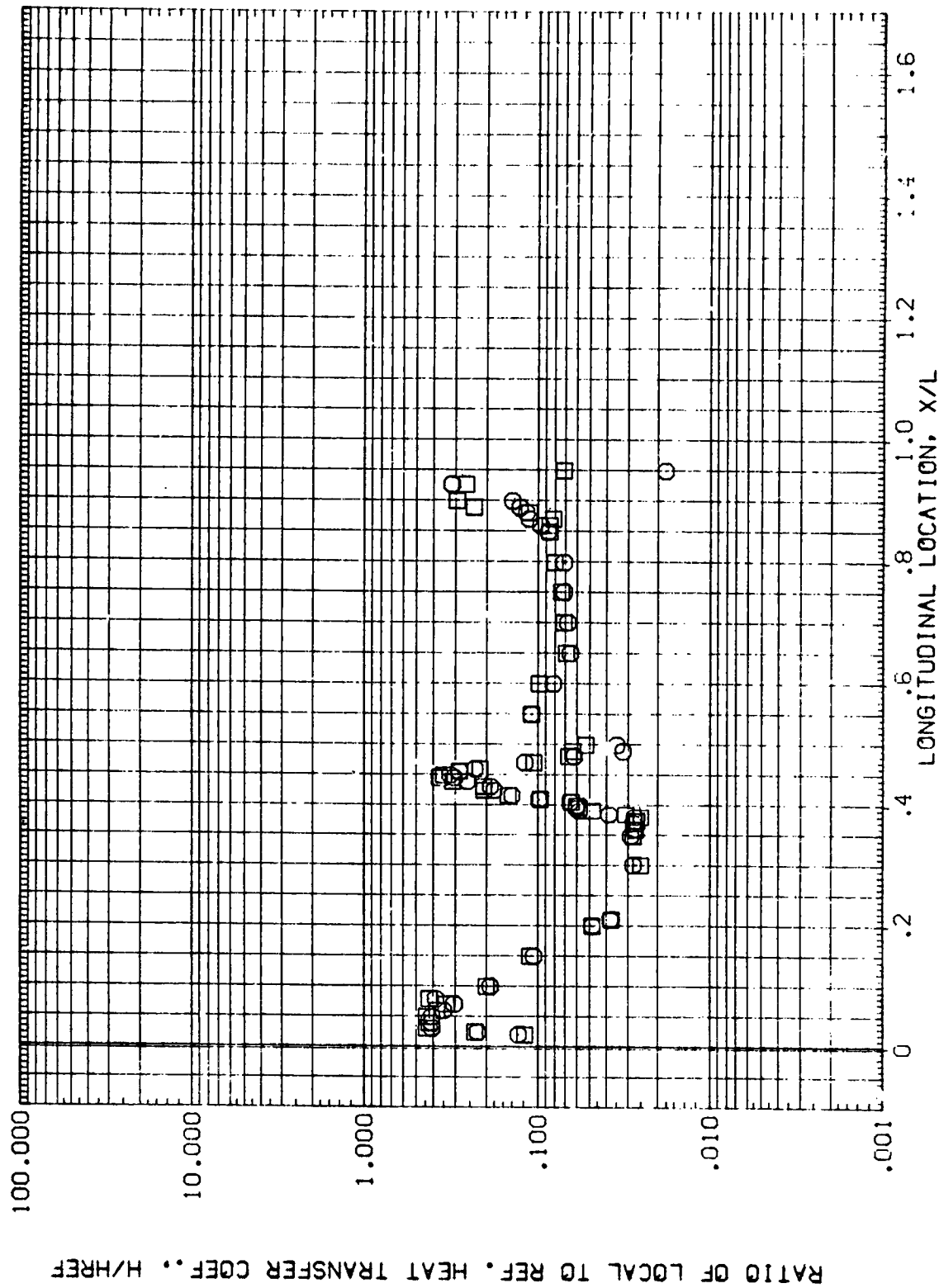


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .390      CH1 = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	EXT TANK	ALPHA	BETA	RN/L
(R4BF13)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	.000	5.000
(R4BF12)	ARC3.5-211(IH48)OT /NIPPLE/P/TRIP	EXT TANK	5.000	-5.000	5.000

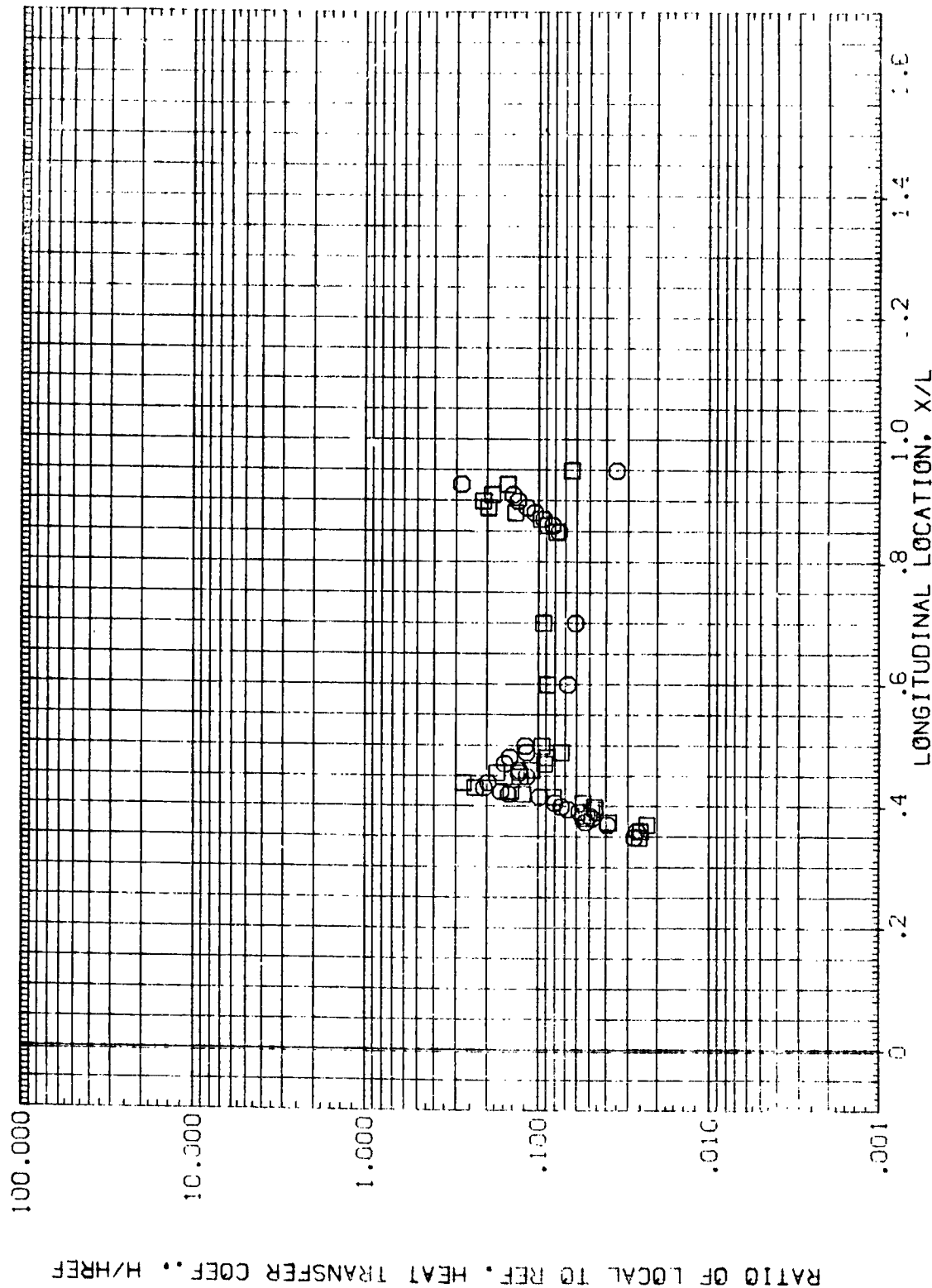


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (R0BF13)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP  
 (R0BF12)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP

EXT TANK      EXT TANK  
 EXT TANK      EXT TANK

ALPHA

BETA

RN/L

5.000      5.000

5.000      5.000

5.000      5.000

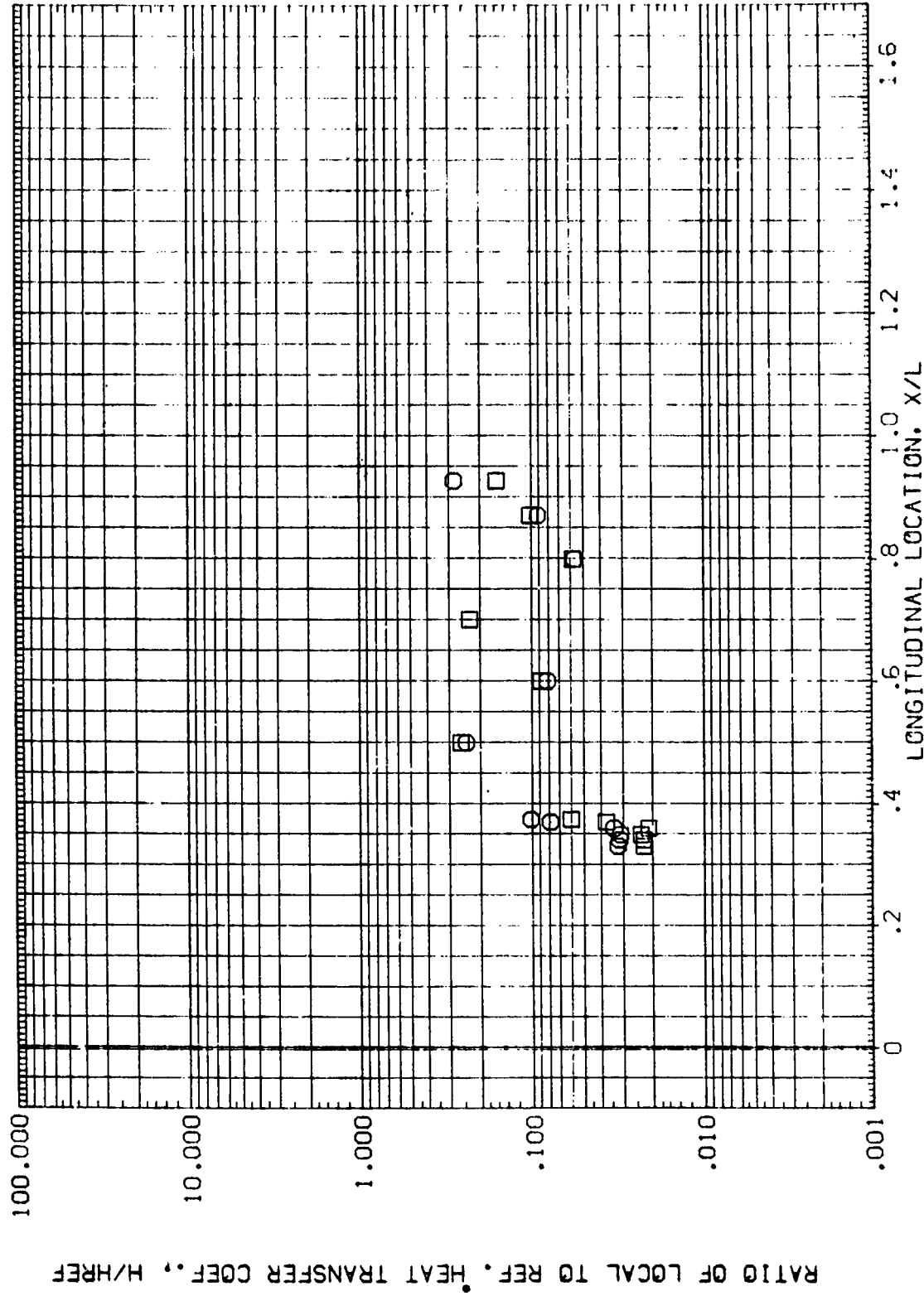


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 197.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFI3)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      5.000      5.000

(RNBFI2)      ARC3.5-211(IH48)OT /NIPPLE/P/TRIP      5.000      -5.000      5.000

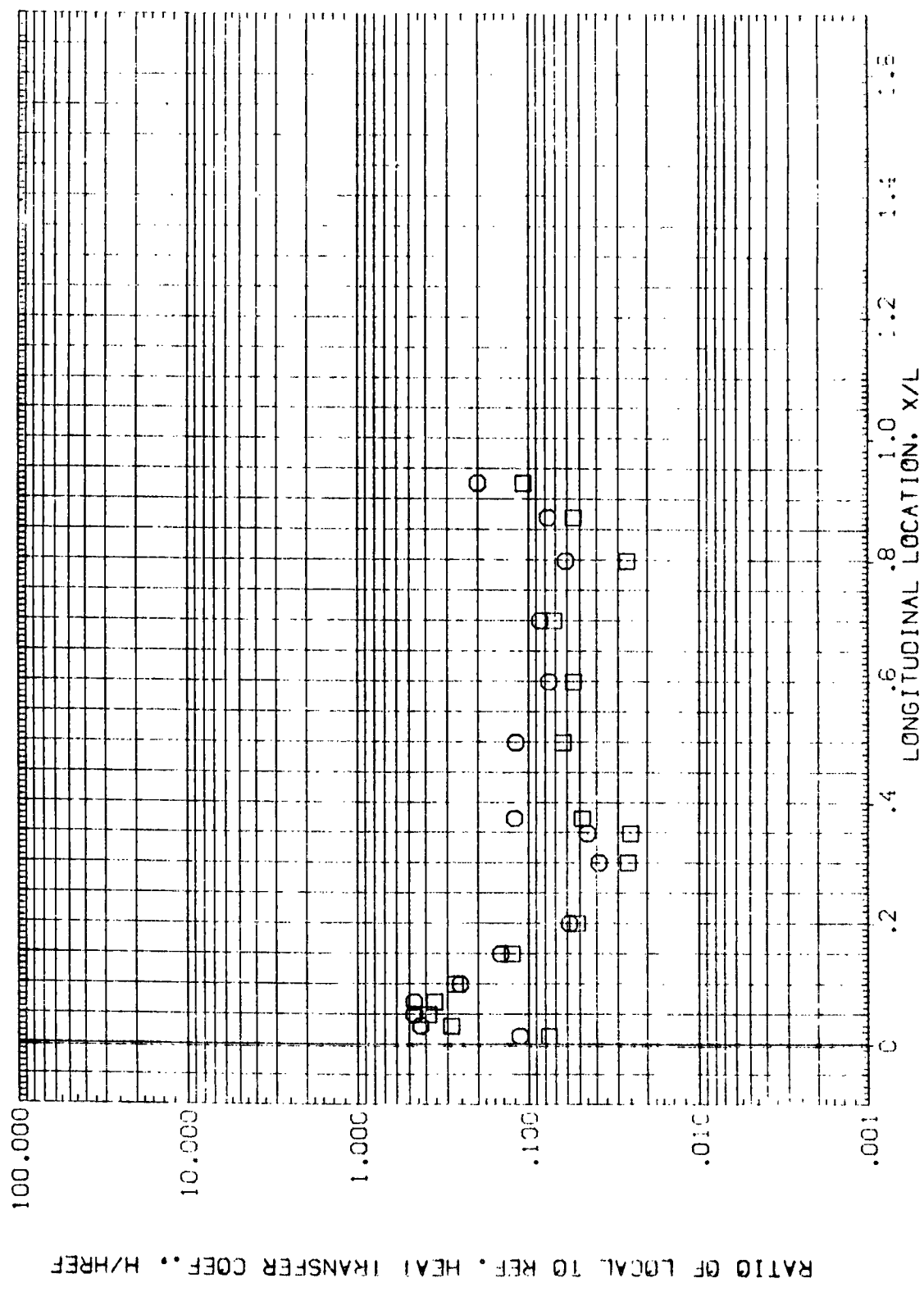


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 209.800



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNGF13)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    .000    5.000  
 (RNGF12)    ARC3.5-211(IH48)OT /NIPPLE/P/TRIP    5.000    -5.000    5.000

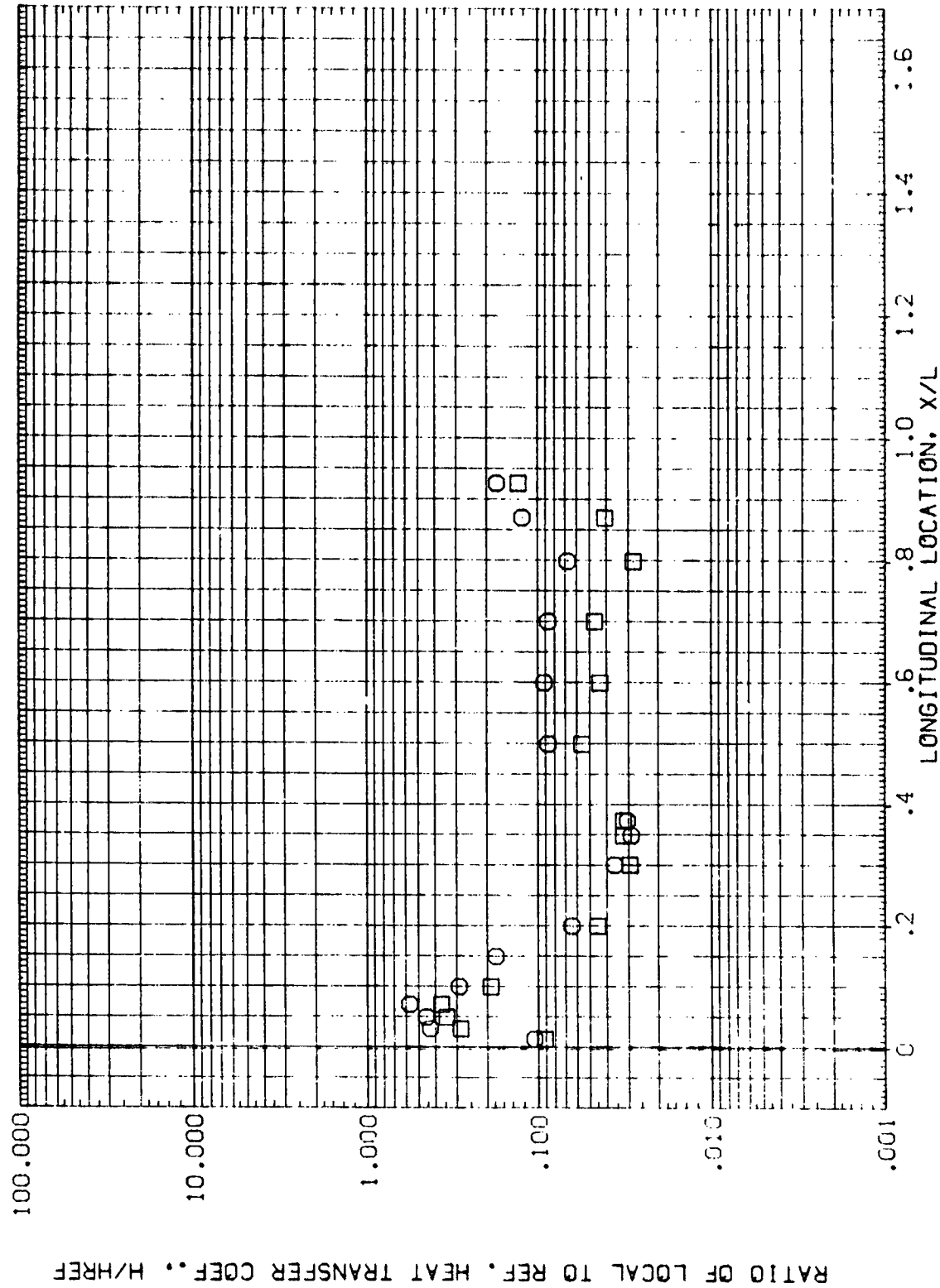


FIG. 09 EFFECT OF BETA ON EXTERNAL TANK

MACH = 0.300    HAW/HT = 0.300    PHI = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO1)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      1.500

(RNBFD6)      DATA NOT AVAILABLE      .000      .000      1.500

(RNBFI6)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500

(RNBFI23)      ARC3.5-211(IH48)ET /OGIVE /CLEAN      .000      .000      1.500

(RNBFI24)      ARC3.5-211(IH48)ET /TRIP /CLEAN      .000      .000      1.500

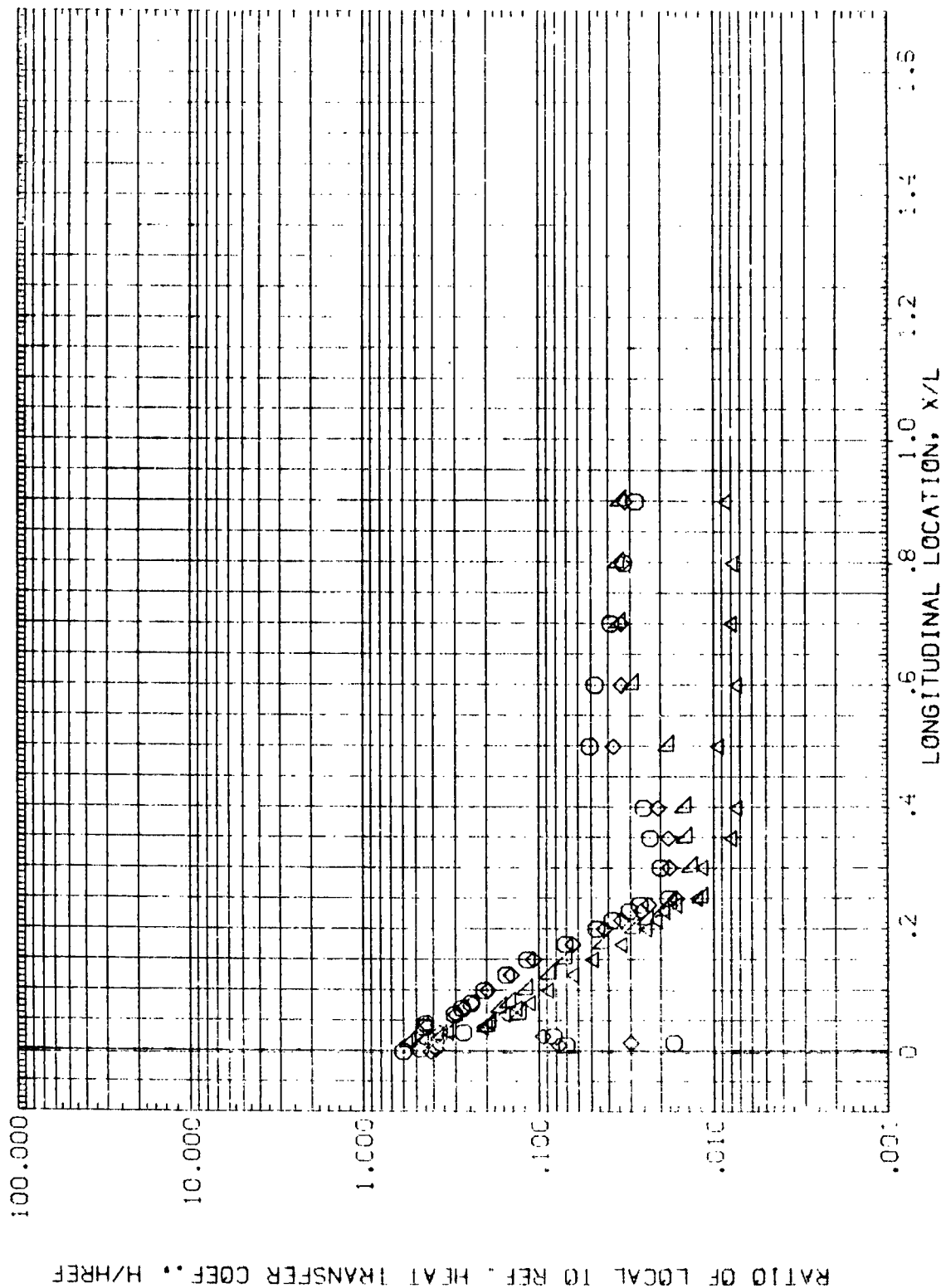


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB01)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK      .000      .000      1.500

(RNB06)      DATA NOT AVAILABLE      .000      .000      1.500

(RNB16)      DATA NOT AVAILABLE      .000      .000      1.500

(RNB23)      DATA NOT AVAILABLE      .000      .000      1.500

(RNB24)      DATA NOT AVAILABLE      .000      .000      1.500

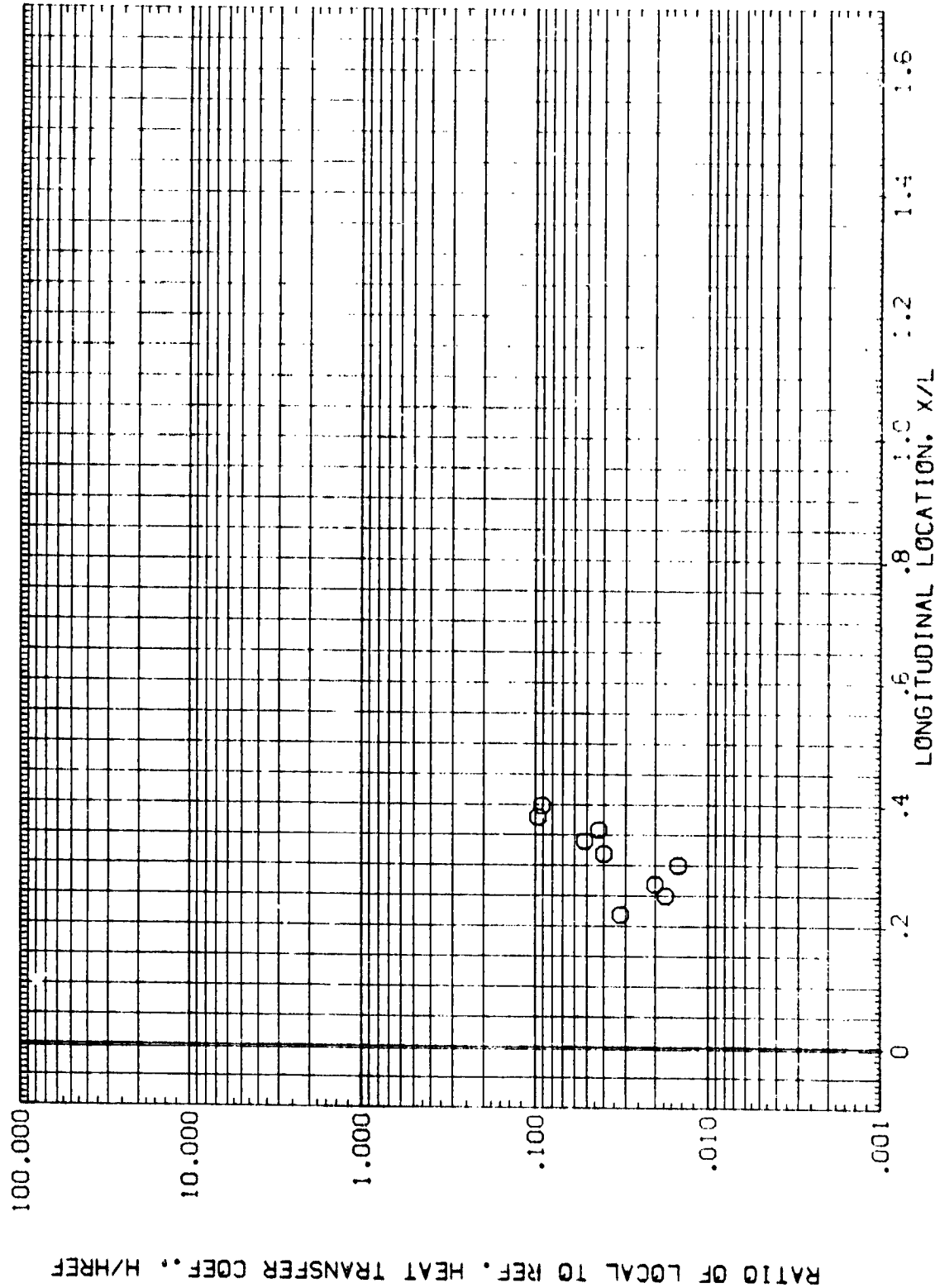


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300      HAW/H<sub>T</sub> = .900      PHI = 55.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RMBF01)	ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(Q+S)	.000	.000	1.500
(RMBF06)	DATA NOT AVAILABLE	.000	.000	1.500
(RMBF16)	ARC3.5-211C(H48)ET /NIPPLE/CLEAN	.000	.000	1.500
(RMBF23)	ARC3.5-211C(H48)ET /OGIVE /CLEAN	.000	.000	1.500
(RMBF24)	ARC3.5-211C(H48)ET /OGIVE /CLEAN /TRIP	.000	.000	1.500

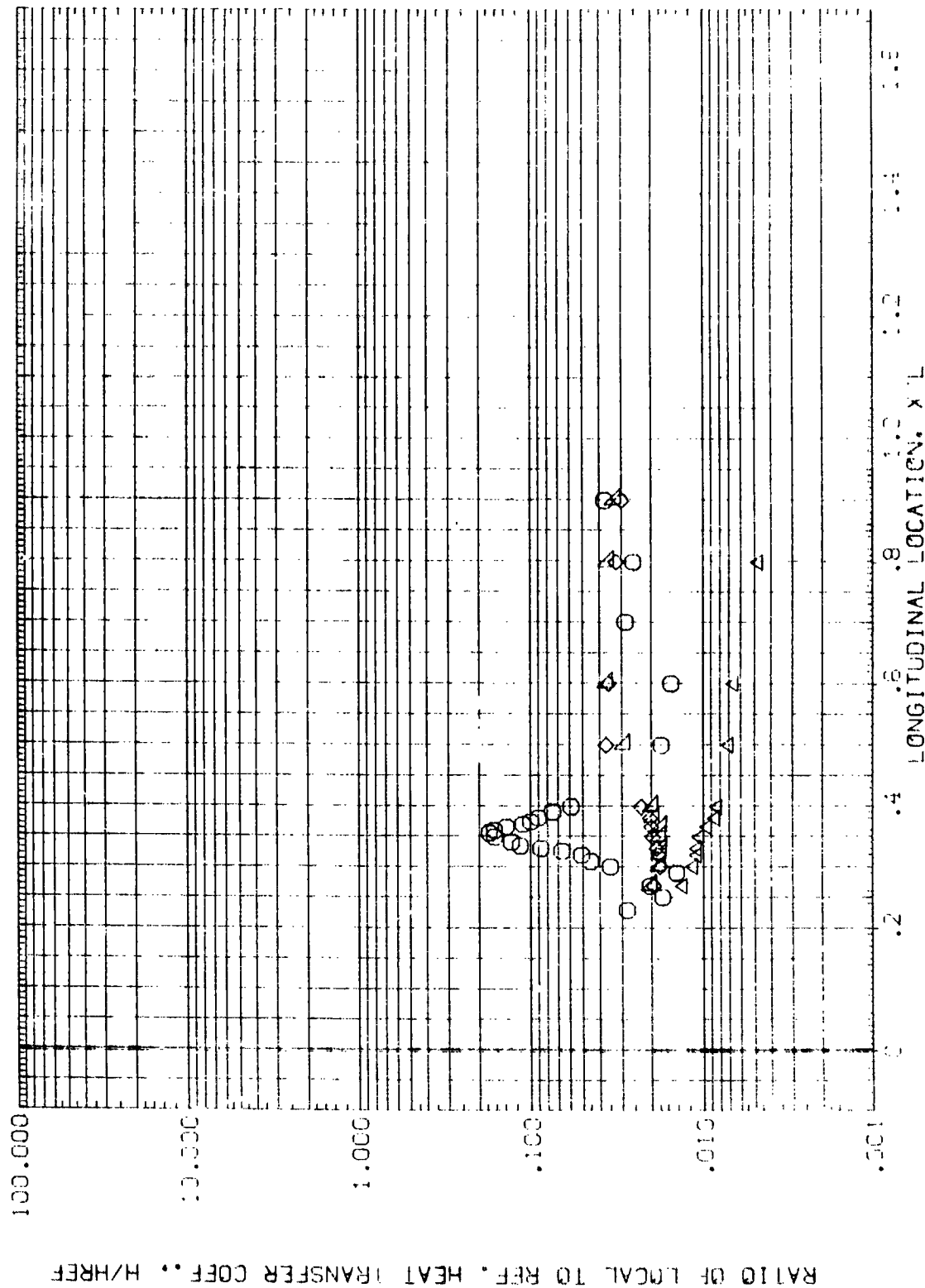


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/INT = .300 P+I = 67.500

DATE 1954



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RM/L

(P)BFC11      ARC3.5-211(C1H48)OTS/NIPPLE/P/TRIP(3+S)      .000      .000      1.500

(R)BFC21      DATA NOT AVAILABLE      .000      .000      1.500

(R)BFC16      ARC3.5-211(C1H48)ET /NIPPLE/CLEAN      .000      .000      1.500

(R)BFC23      ARC3.5-211(C1H48)ET /OGIVE /CLEAN      .000      .000      1.500

(R)BFC24      ARC3.5-211(C1H48)ET /OGIVE /TRIP      .000      .000      1.500

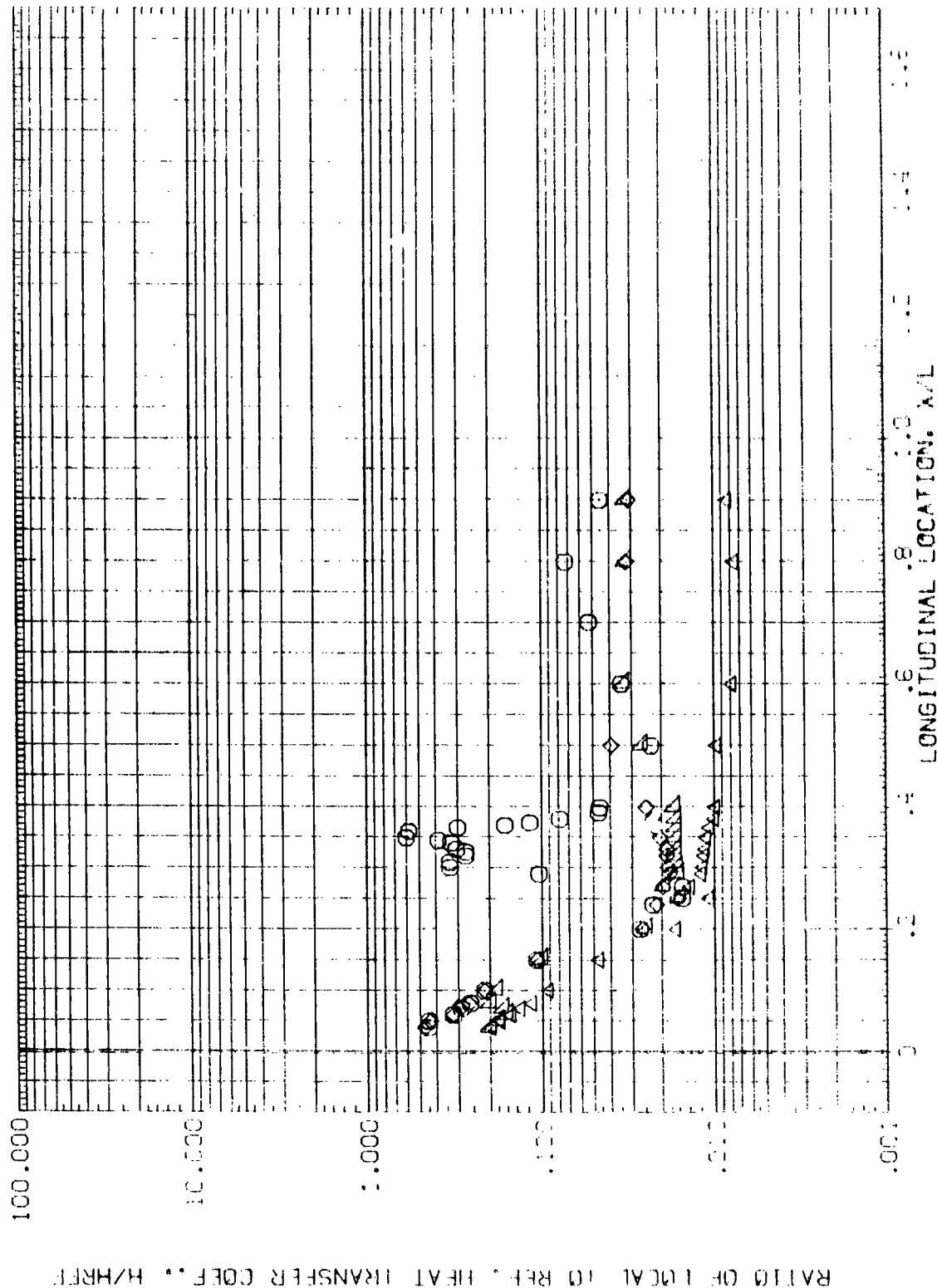
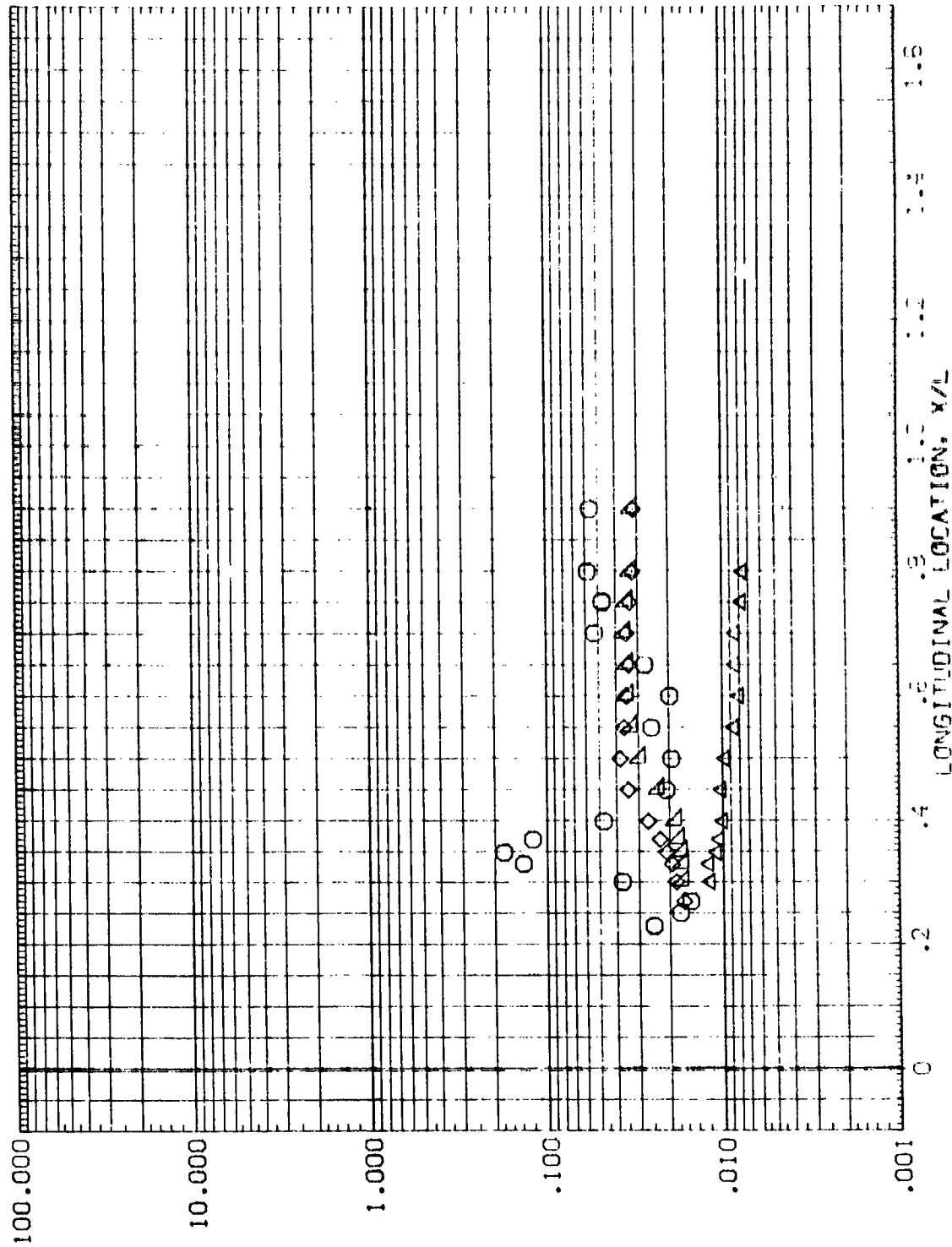


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

RAU = 5.300      RAU/HT = .300      HT = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	EX/L
(R1BF01)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(G+S) EXT TANK	.000	.000	1.000
(R1BF08)	DATA NOT AVAILABLE	.000	.000	1.000
(R1BF16)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK	.000	.000	1.000
(R1BF23)	ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK	.000	.000	1.000
(R1BF24)	ARC3.5-211(IH48)ET /OGIVE /TRIP EXT TANK	.000	.000	1.000



RATIO OF LOCAL TO REF. HEAT TRANSFER COEFF., H/HREF

FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HREF = 112.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNF01) ARC3 5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNF06) DATA NOT AVAILABLE  
 (RNF16) DATA NOT AVAILABLE  
 (RNF23) DATA NOT AVAILABLE  
 (RNF24) DATA NOT AVAILABLE

ALPHA BETA R/L  
 .000 .000 .500  
 .000 .000 .500  
 .000 .000 .500  
 .000 .000 .500  
 .000 .000 .500

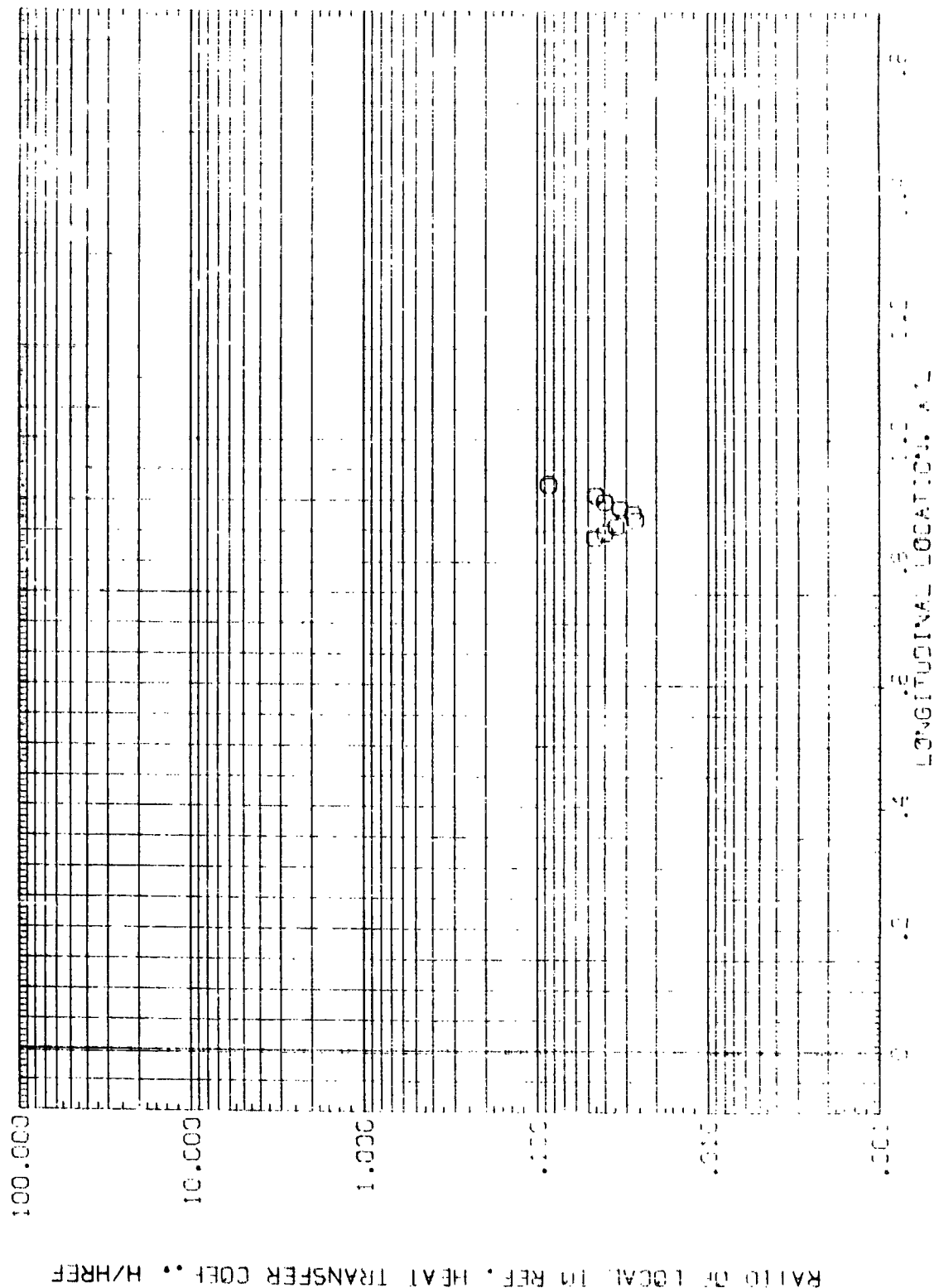


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TAN

ARC3 5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	1.500
(RNBFO6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNB16)	DATA NOT AVAILABLE	.000	.000	1.500
(RNB23)	DATA NOT AVAILABLE	.000	.000	1.500
(RNB24)	DATA NOT AVAILABLE	.000	.000	1.500

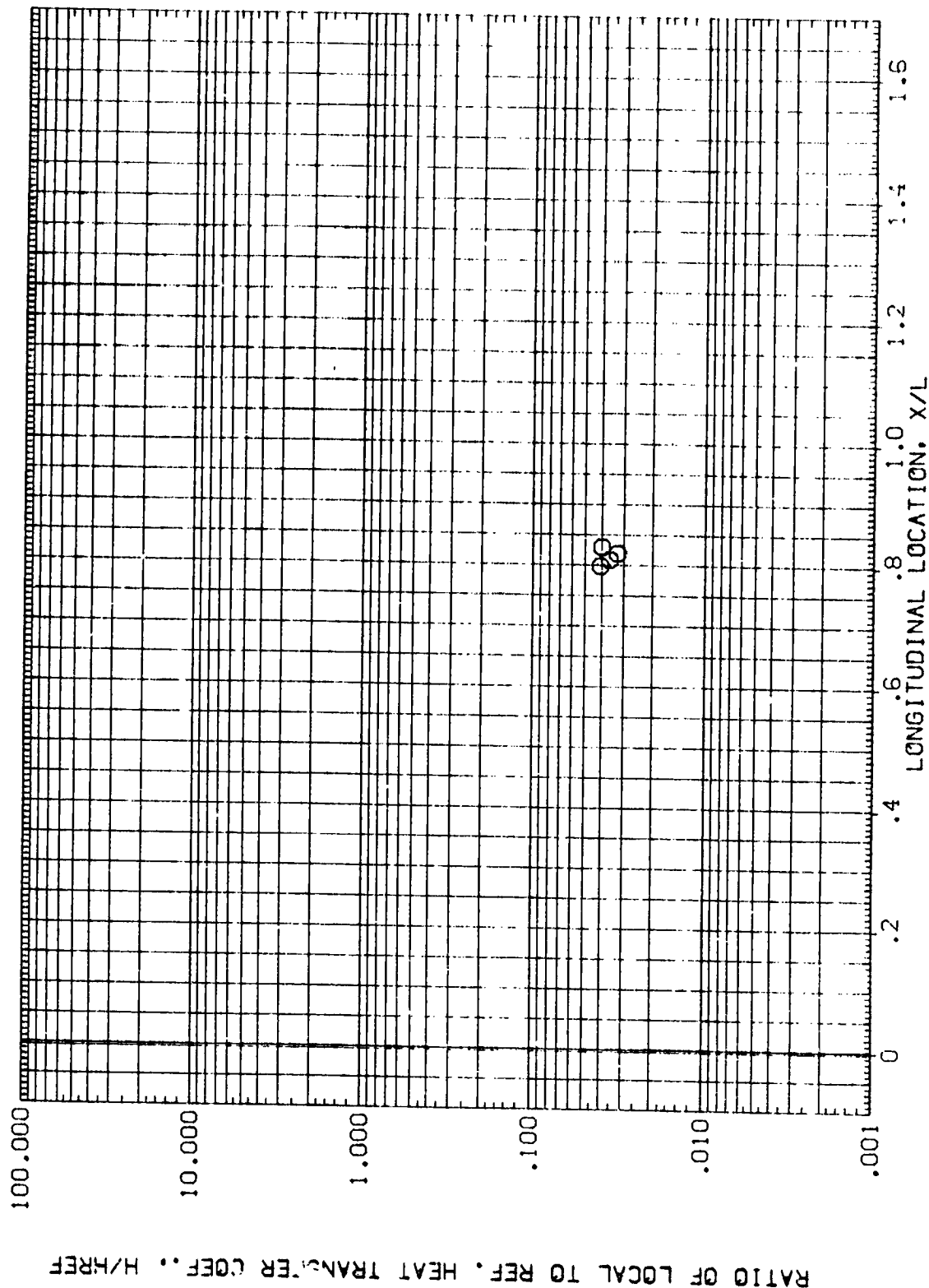


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)	.000	.000	1.500
(RNBFO6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI6)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	1.500
(RNBFI23)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	.000	.000	1.500
(RNBFI24)	ARC3.5-211(IH48)ET /OGIVE /TRIP	.000	.000	1.500

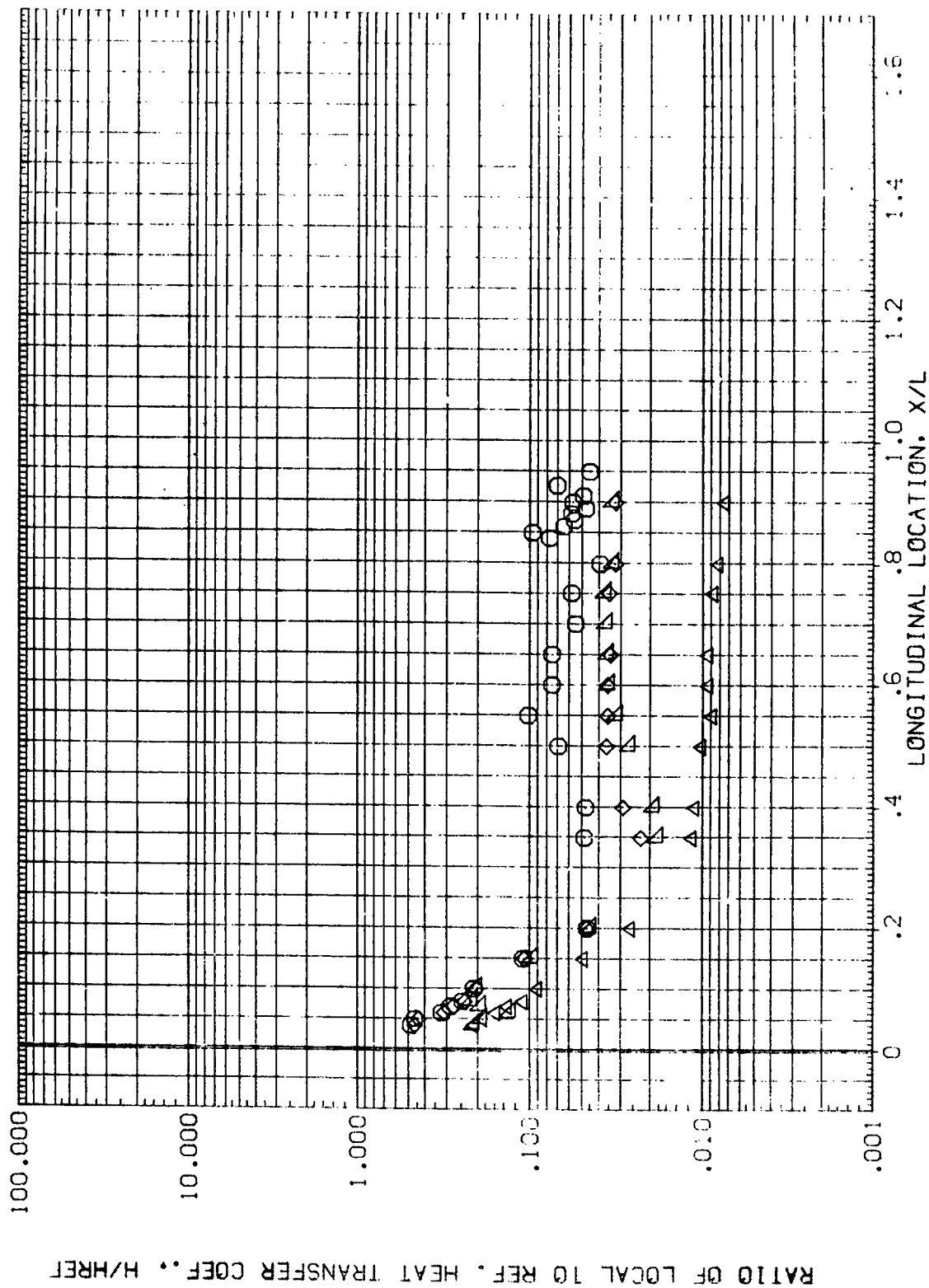


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	1.500
(RNBFO6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI23)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI24)	DATA NOT AVAILABLE	.000	.000	1.500

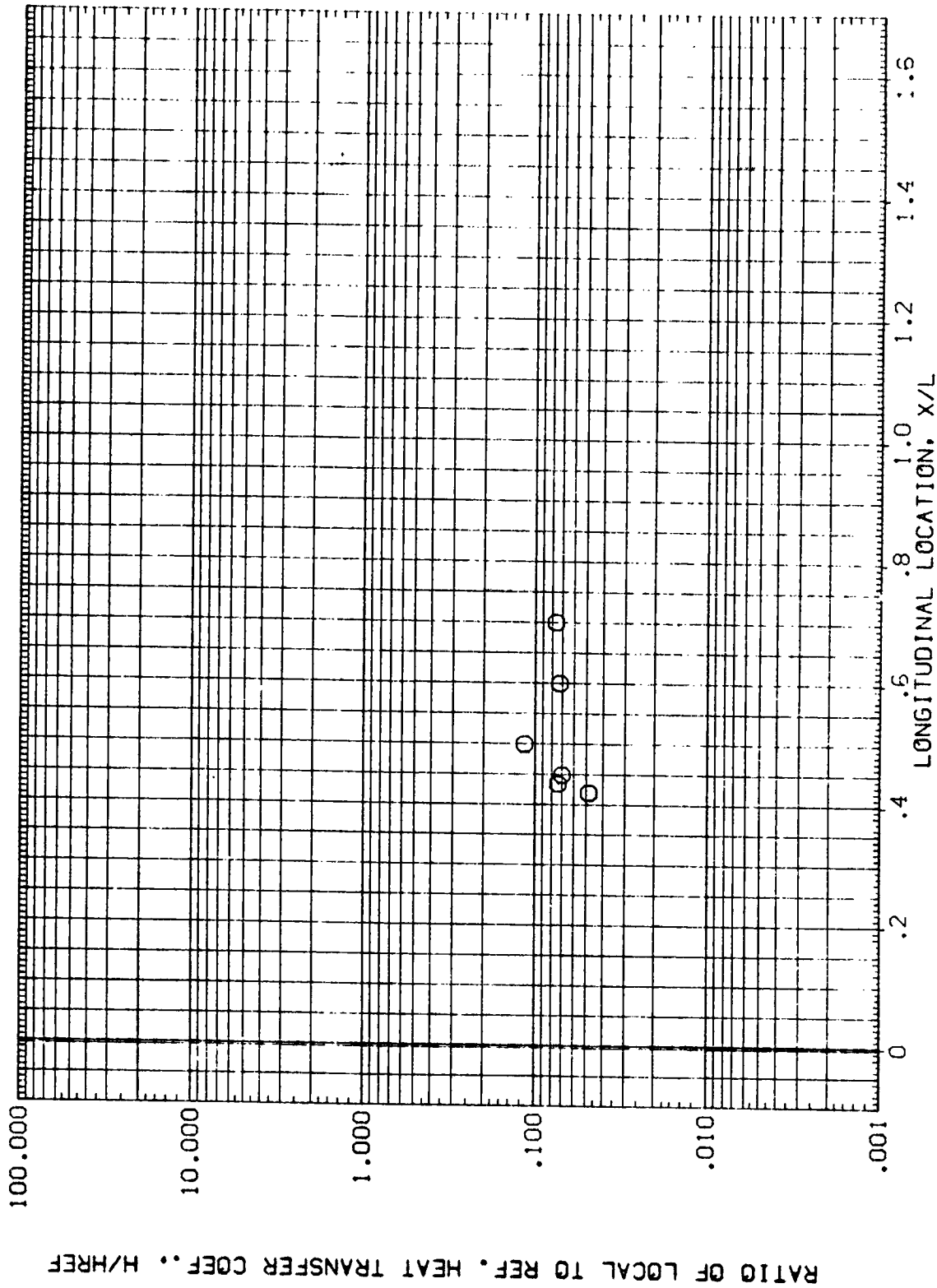


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI 147.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	1.500
(RNBFO6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI23)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI24)	DATA NOT AVAILABLE	.000	.000	1.500

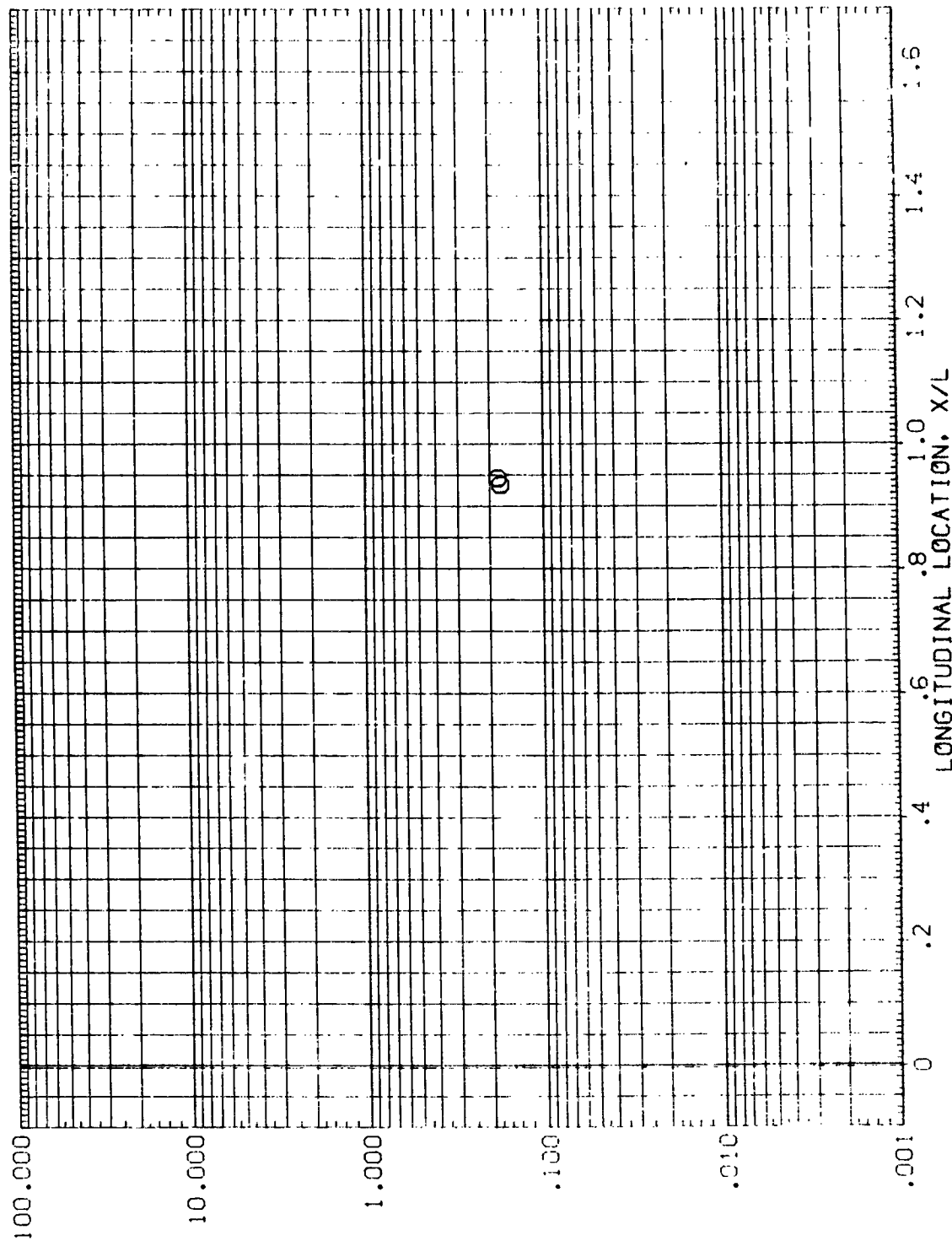


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK	.000	.000	1.500
(RNBFO6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI3)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI4)	DATA NOT AVAILABLE	.000	.000	1.500

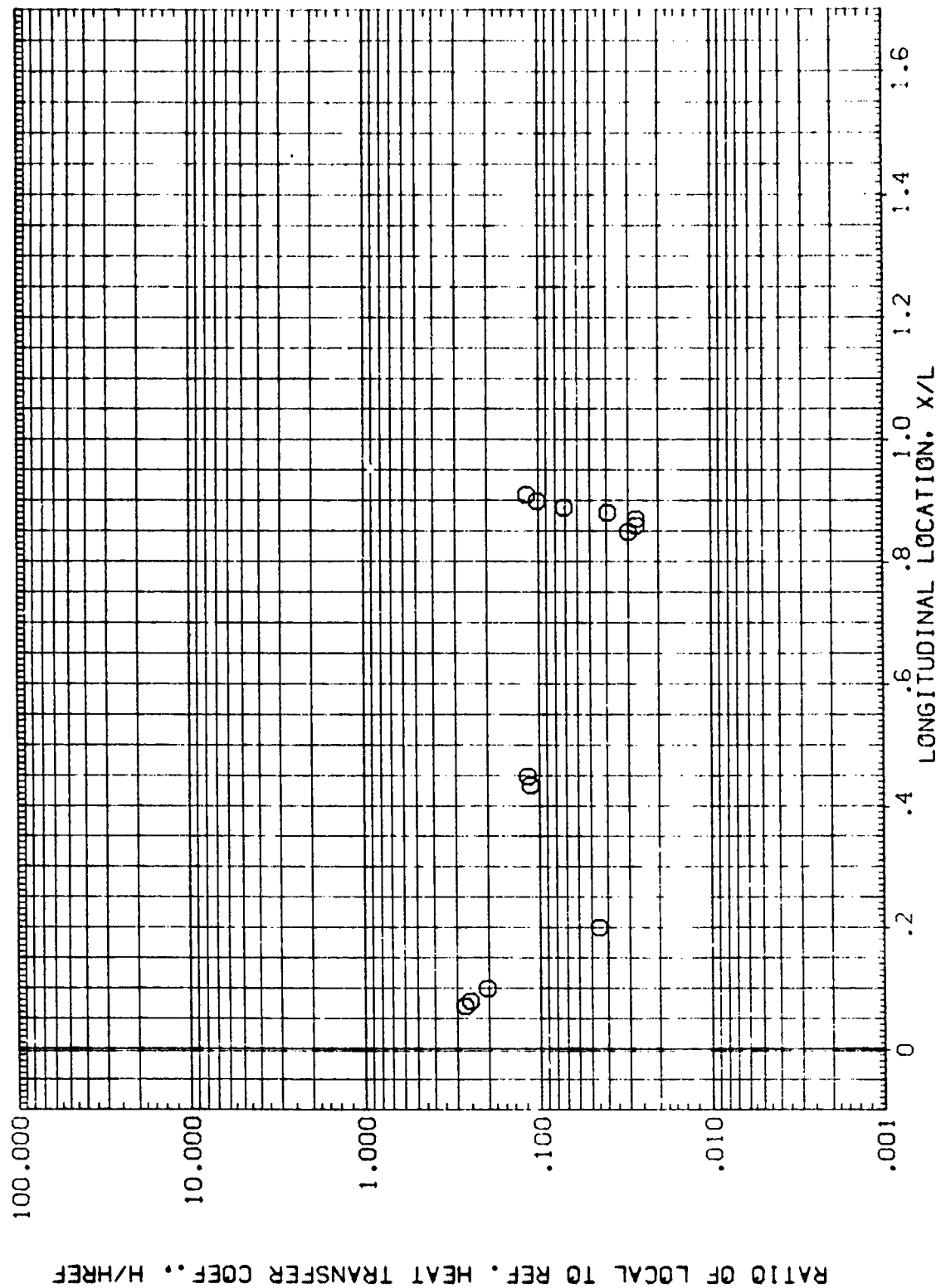


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 157.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB01)      ARC3.5-211C1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      .000      .000      1.500

(RNB06)      DATA NOT AVAILABLE      .000      .000      1.500

(RNB16)      DATA NOT AVAILABLE      .000      .000      1.500

(RNB23)      DATA NOT AVAILABLE      .000      .000      1.500

(RNB24)      DATA NOT AVAILABLE      .000      .000      1.500

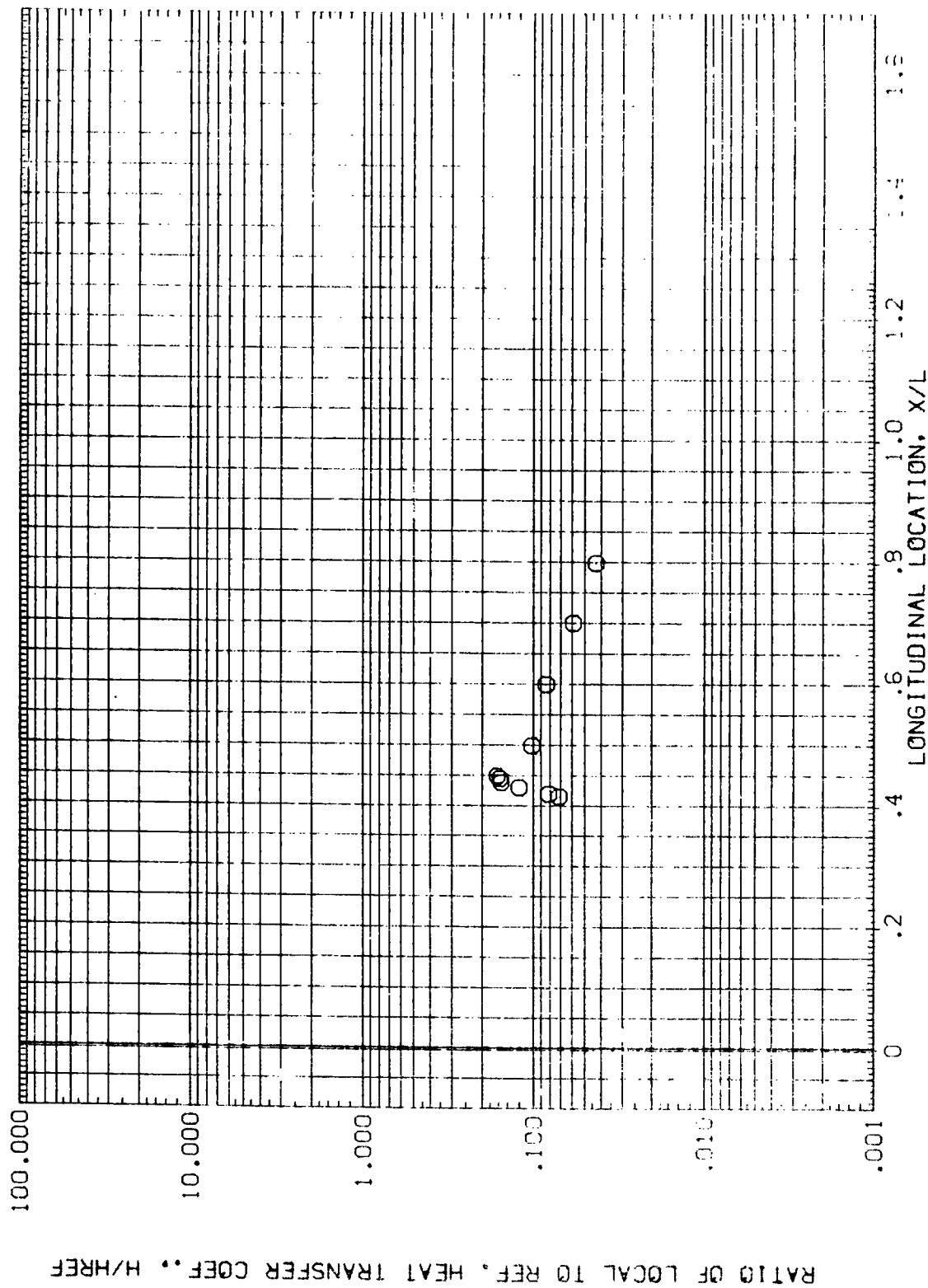


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.120

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	1.500
(RNBFO6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI23)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFI24)	DATA NOT AVAILABLE	.000	.000	1.500

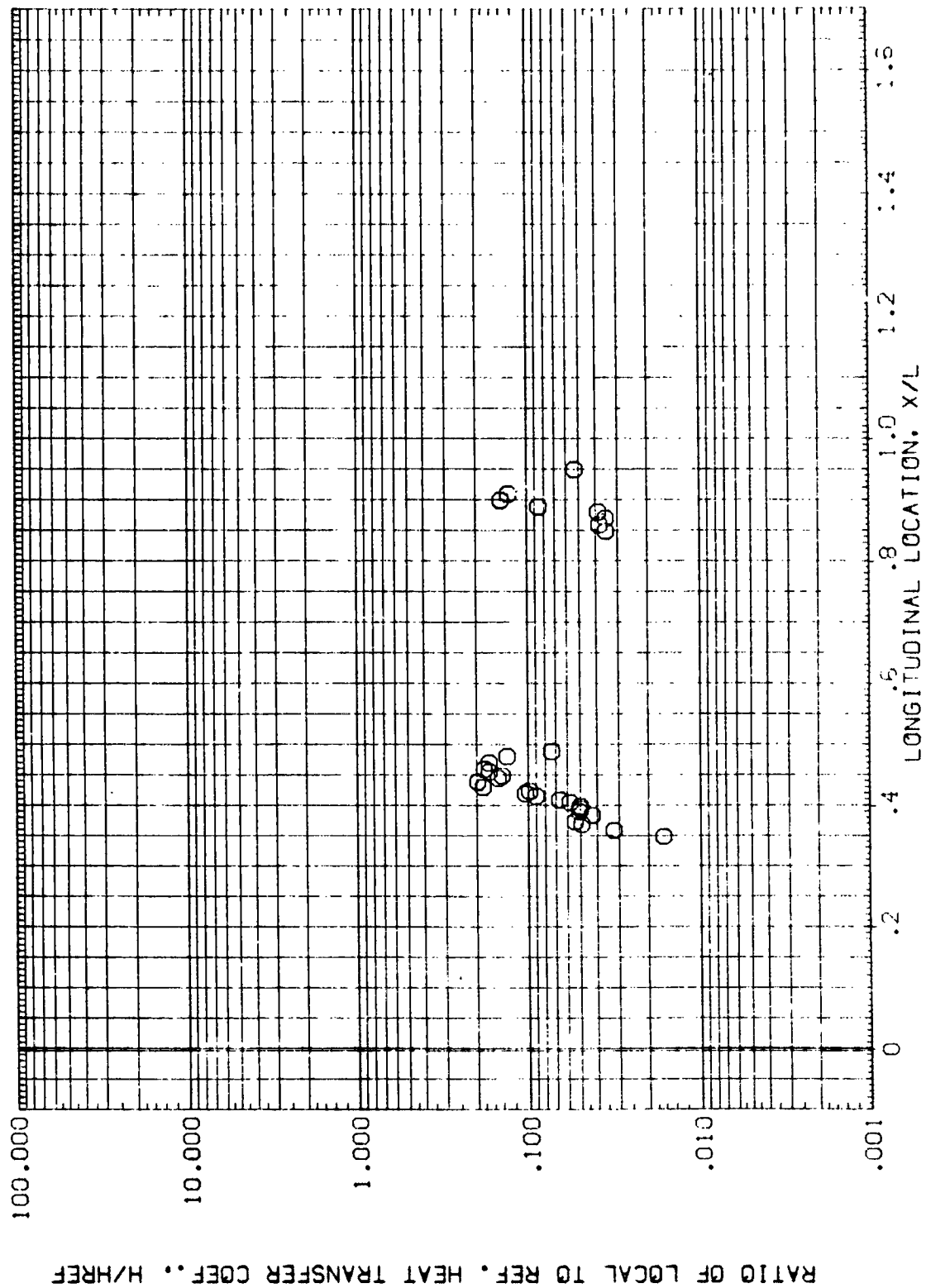


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(R1BF01)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	1.500
(R1BF06)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	1.500
(R1BF16)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	1.500
(R1BF23)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	.000	.000	1.500
(R1BF24)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP	.000	.000	1.500

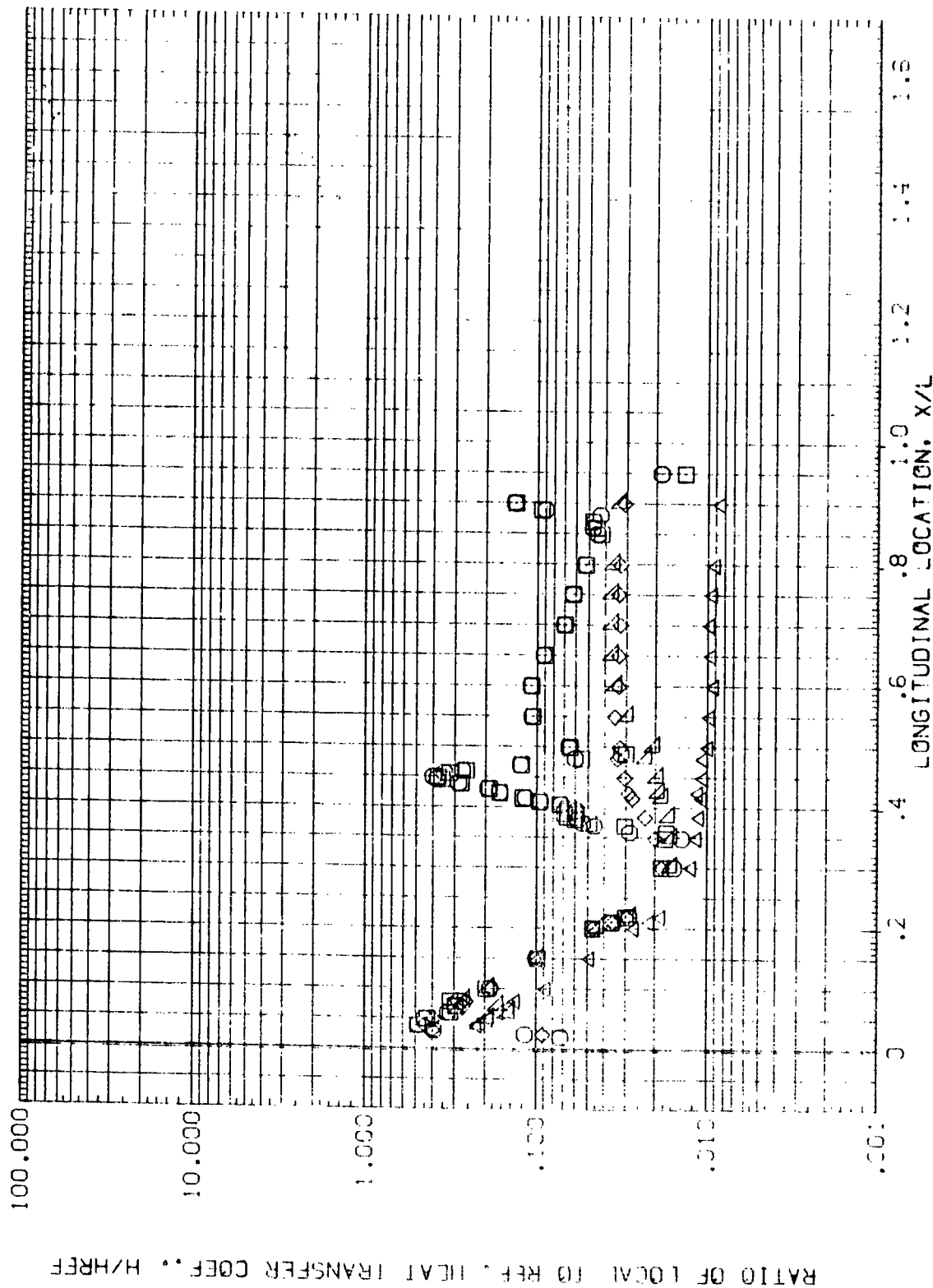


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HTE = .000 PHI = 180.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	1.500
(RNBFO6)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	1.500
(RNBFI6)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	1.500
(RNBFI23)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	.000	.000	1.500
(RNBFI24)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP	.000	.000	1.500

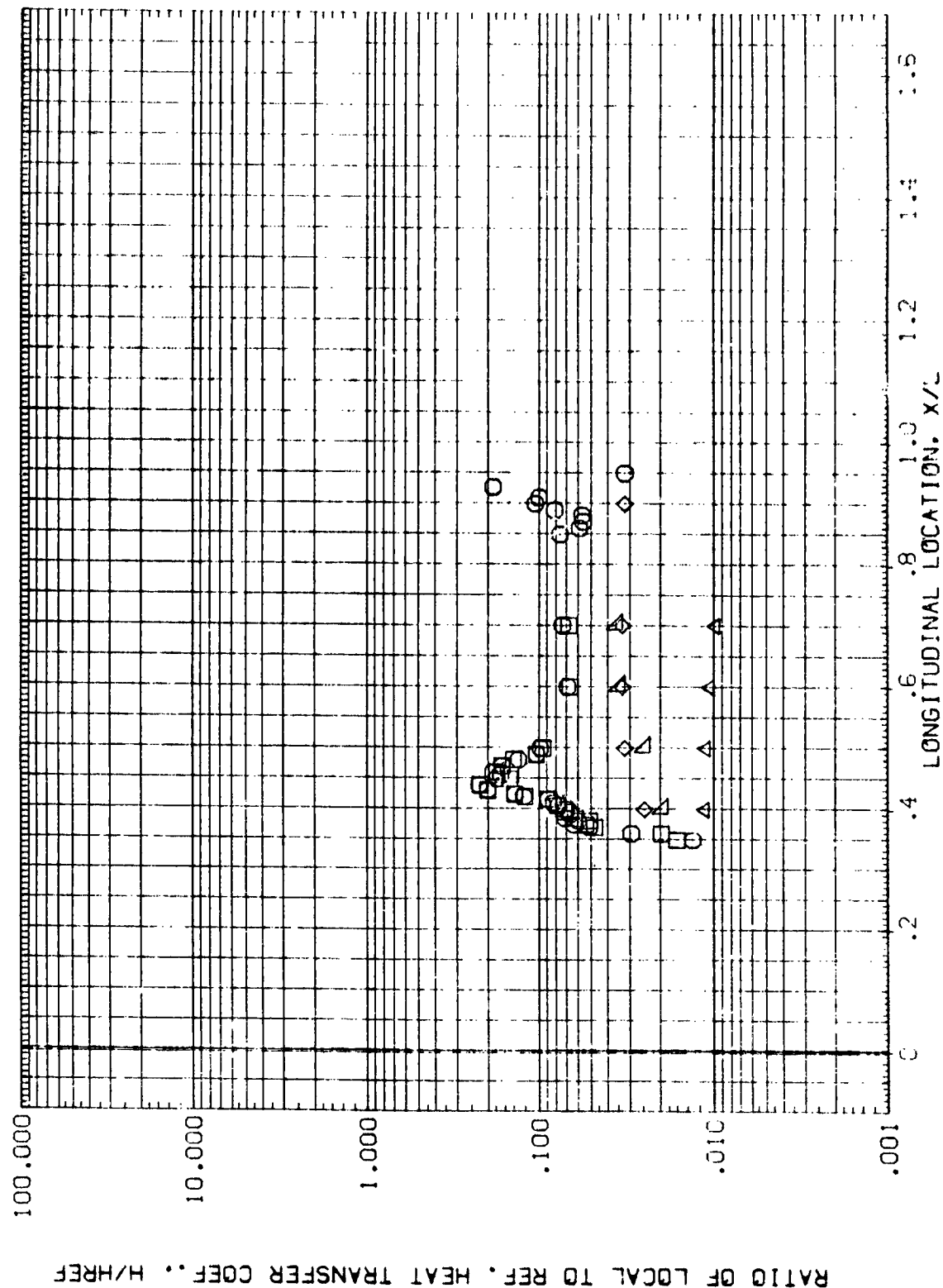


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HIE = .900 PHI = 191.250

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RA/L
(RNB01)	ARC3.5-211(148)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	.500
(RNB06)	DATA NOT AVAILABLE	.000	.000	.500
(RNB16)	DATA NOT AVAILABLE	.000	.000	.500
(RNB23)	DATA NOT AVAILABLE	.000	.000	.500
(RNB24)	DATA NOT AVAILABLE	.000	.000	.500

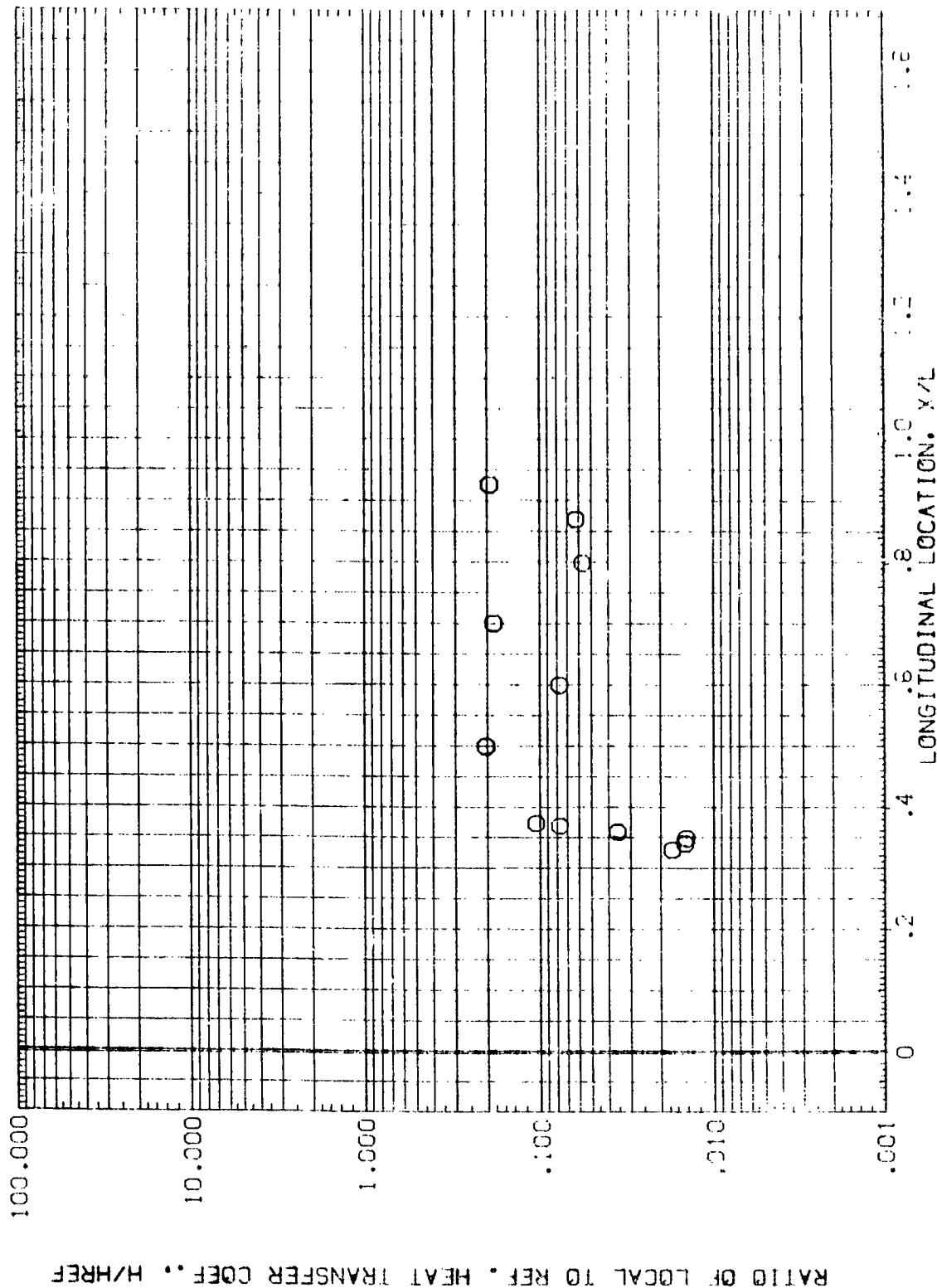


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .300  $\Phi H$  = 197.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RBF01)	ARC3.5-211(148)OTS/NIPPLE/P/TR(P(0+S) EXT TANK	.000	.000	1.500
(RBF06)	DATA NOT AVAILABLE	.000	.000	1.500
(RBF16)	DATA NOT AVAILABLE	.000	.000	1.500
(RBF23)	DATA NOT AVAILABLE	.000	.000	1.500
(RBF24)	DATA NOT AVAILABLE	.000	.000	1.500

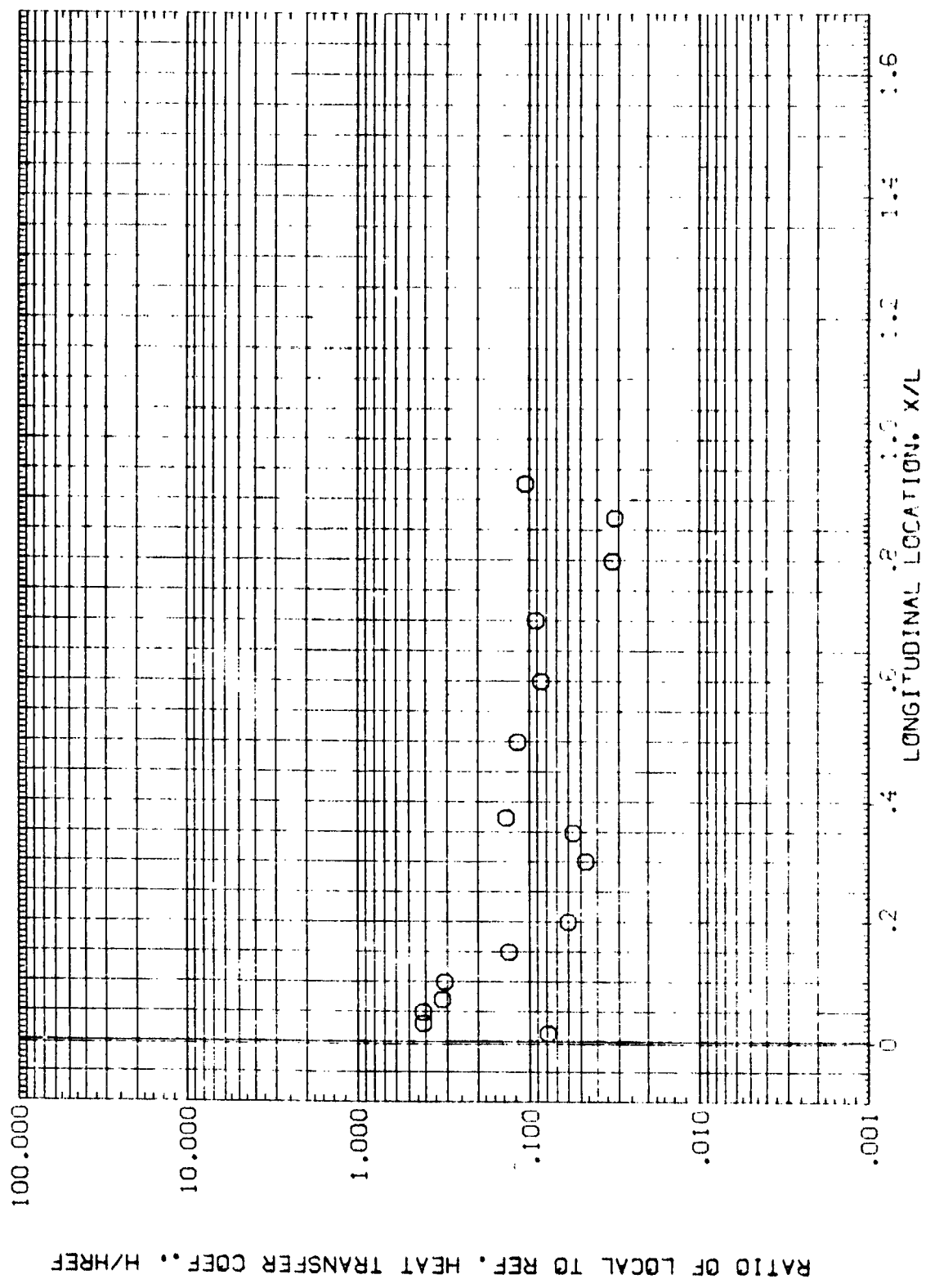


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      R<sub>0.2</sub>

(RNB01)      ARC3-S-211C1H48JET /NIPPLE/P/TRIP(0+S)      EXT TANK      .000      .000      1.500

(RNB06)      DATA NOT AVAILABLE      .000      .000      1.500

(RNB16)      ARC3-S-211C1H48JET /NIPPLE/CLEAN      EXT TANK      .000      .000      1.500

(RNB23)      ARC3-S-211C1H48JET /OSIVE /CLEAN      EXT TANK      .000      .000      1.500

(RNB24)      ARC3-S-211C1H48JET /OSIVE /TRIP      EXT TANK      .000      .000      1.500

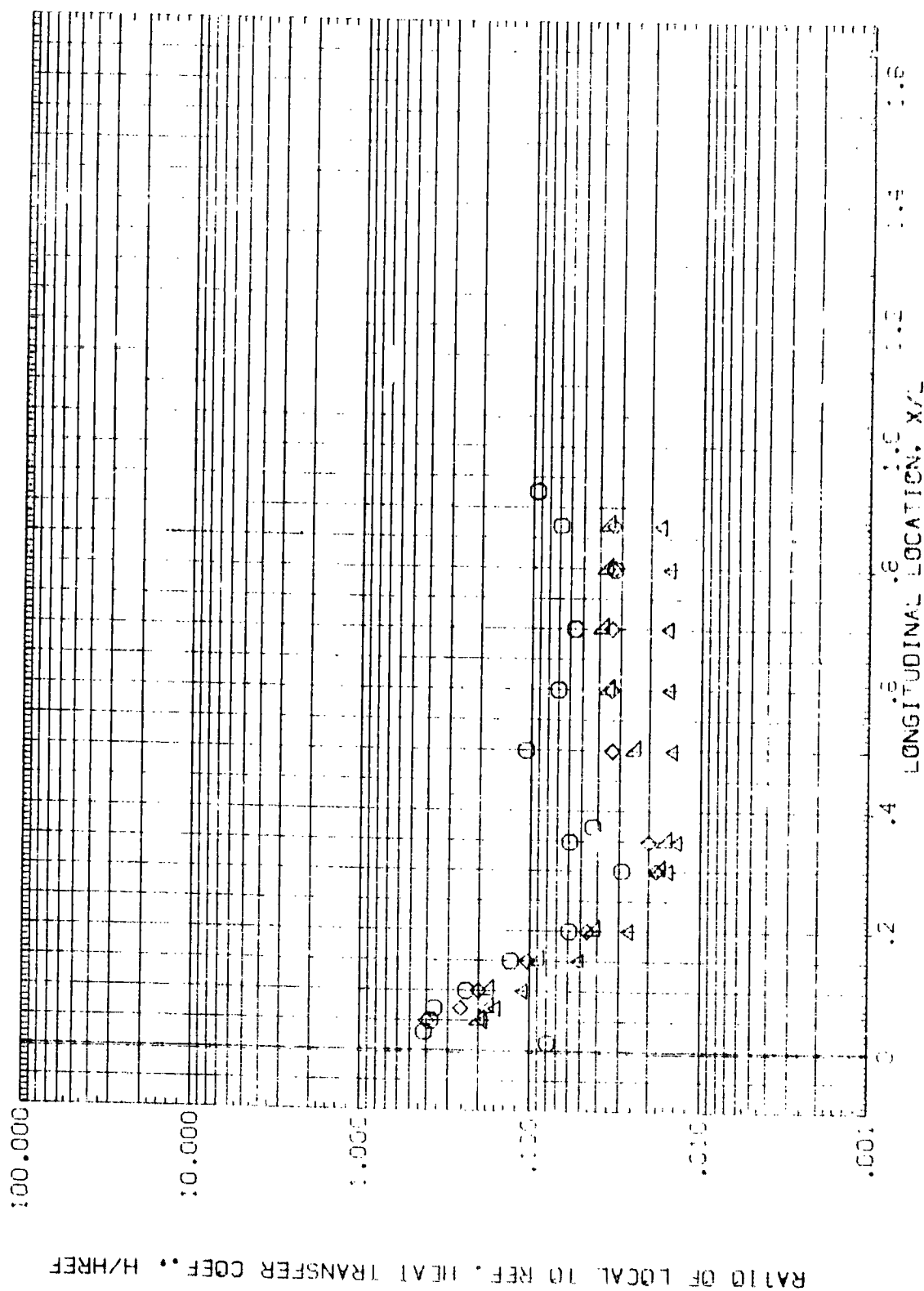


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.000      HAWKITE = .000      PH = 200.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RV/L
(R1BF02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)	.000	.000	5.000
(R1BF17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000
(R1BF20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	.000	.000	5.000
(R1BF25)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP	.000	.000	5.000

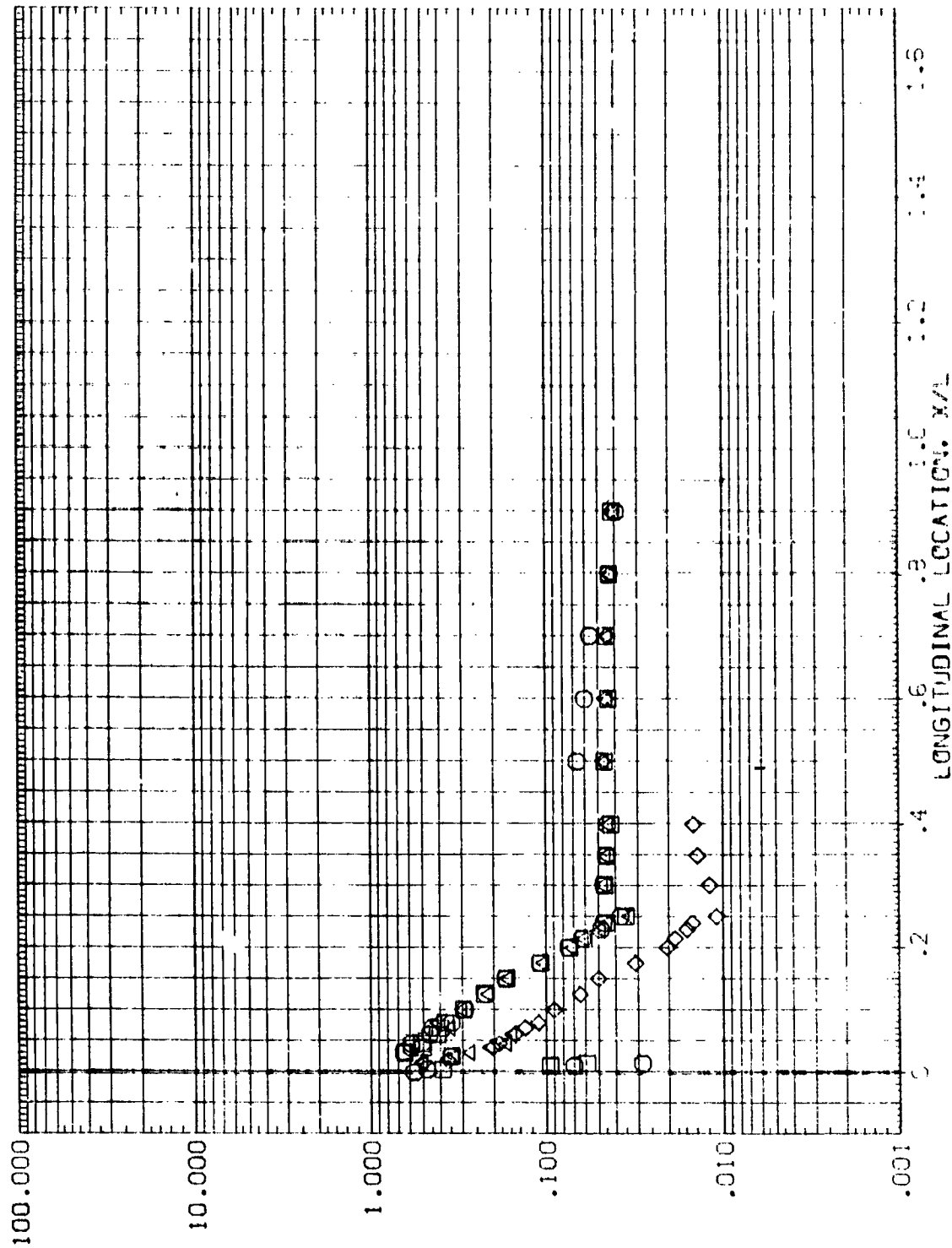
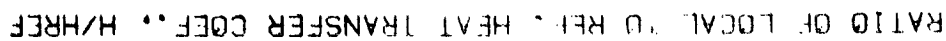


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/H = .900 Pw = .000

[illegible][illegible]

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	5.000
(RNB17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000
(RNB20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	.000	.000	5.000
(RNB25)	ARC3.5-211(IH48)ET /OGIVE /TRIP	.000	.000	5.000

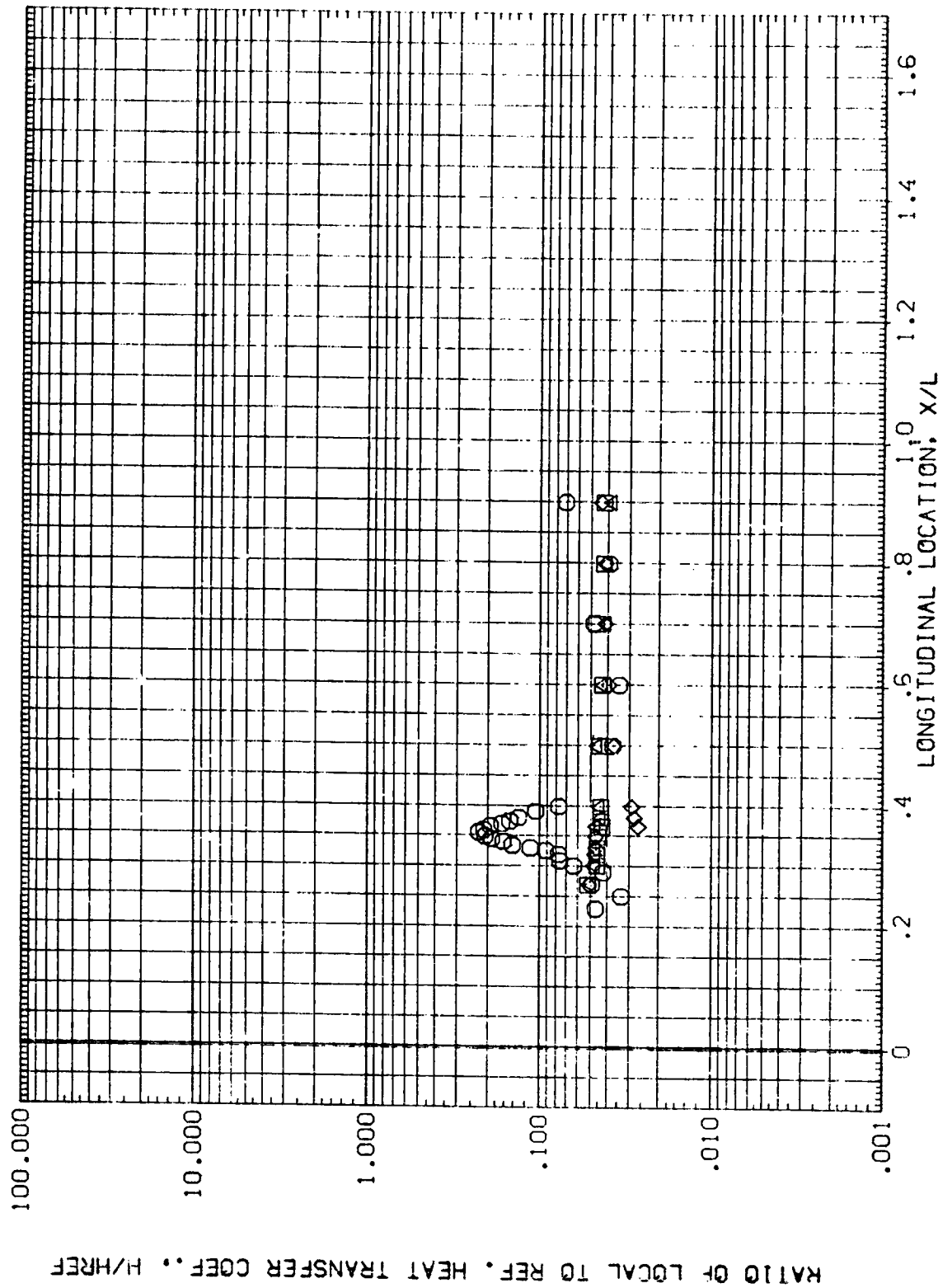


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HTE = .900 PHI = 67.500

DATA SET SYMBOL  
 (RNB02)  $\square$   
 (RNB17)  $\square$   
 (RNB20)  $\square$   
 (RNB25)  $\square$

CONFIGURATION DESCRIPTION  
 ARC3.5-211(I48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 DATA NOT AVAILABLE  
 DATA NOT AVAILABLE  
 DATA NOT AVAILABLE

ALPHA BETA RN/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

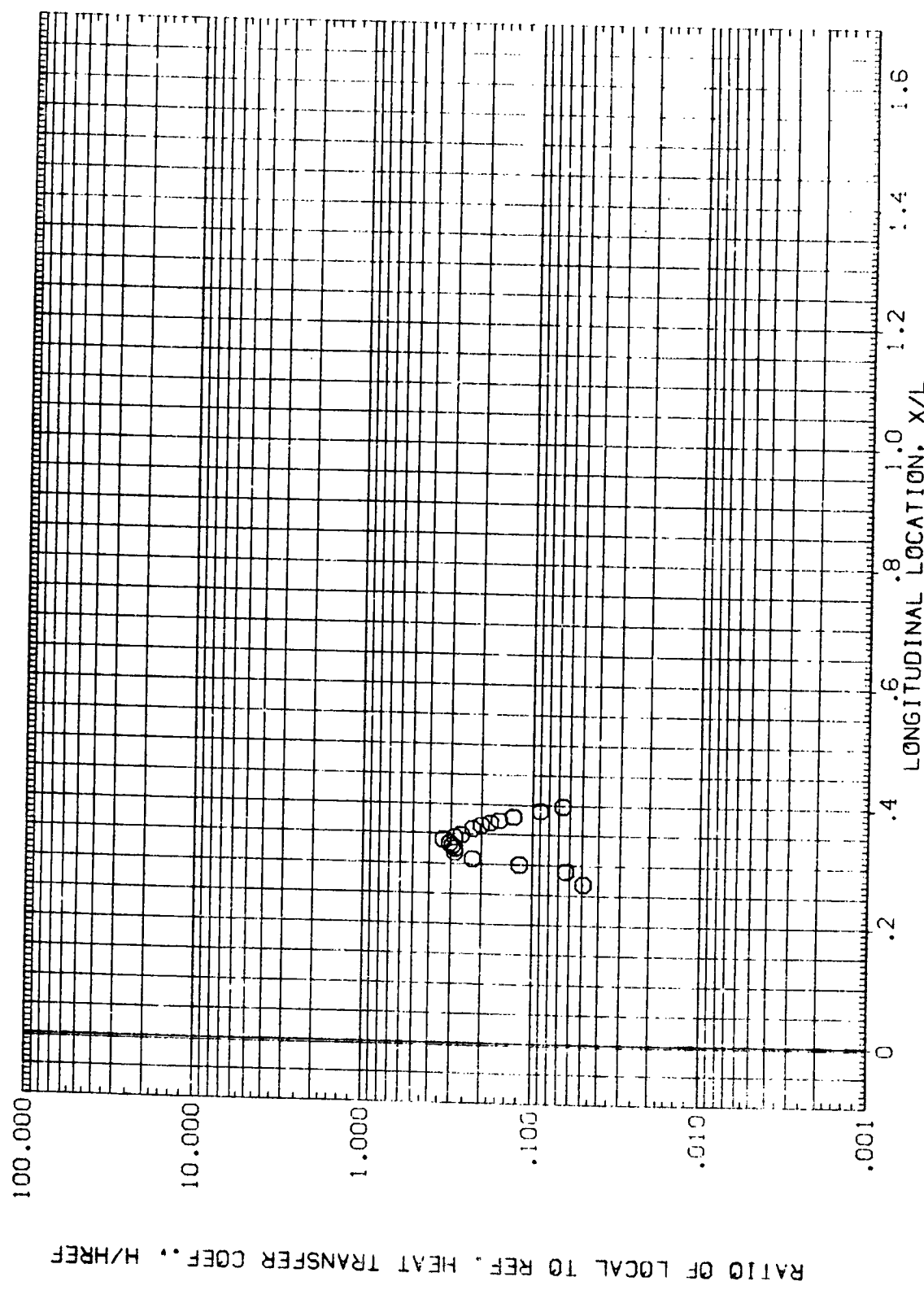


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	5.000
(RNBFI7)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	.000	.000	5.000
(RNBFI20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	.000	.000	5.000
(RNBFI25)	ARC3.5-211(IH48)ET /OGIVE /TRIP EXT TANK	.000	.000	5.000

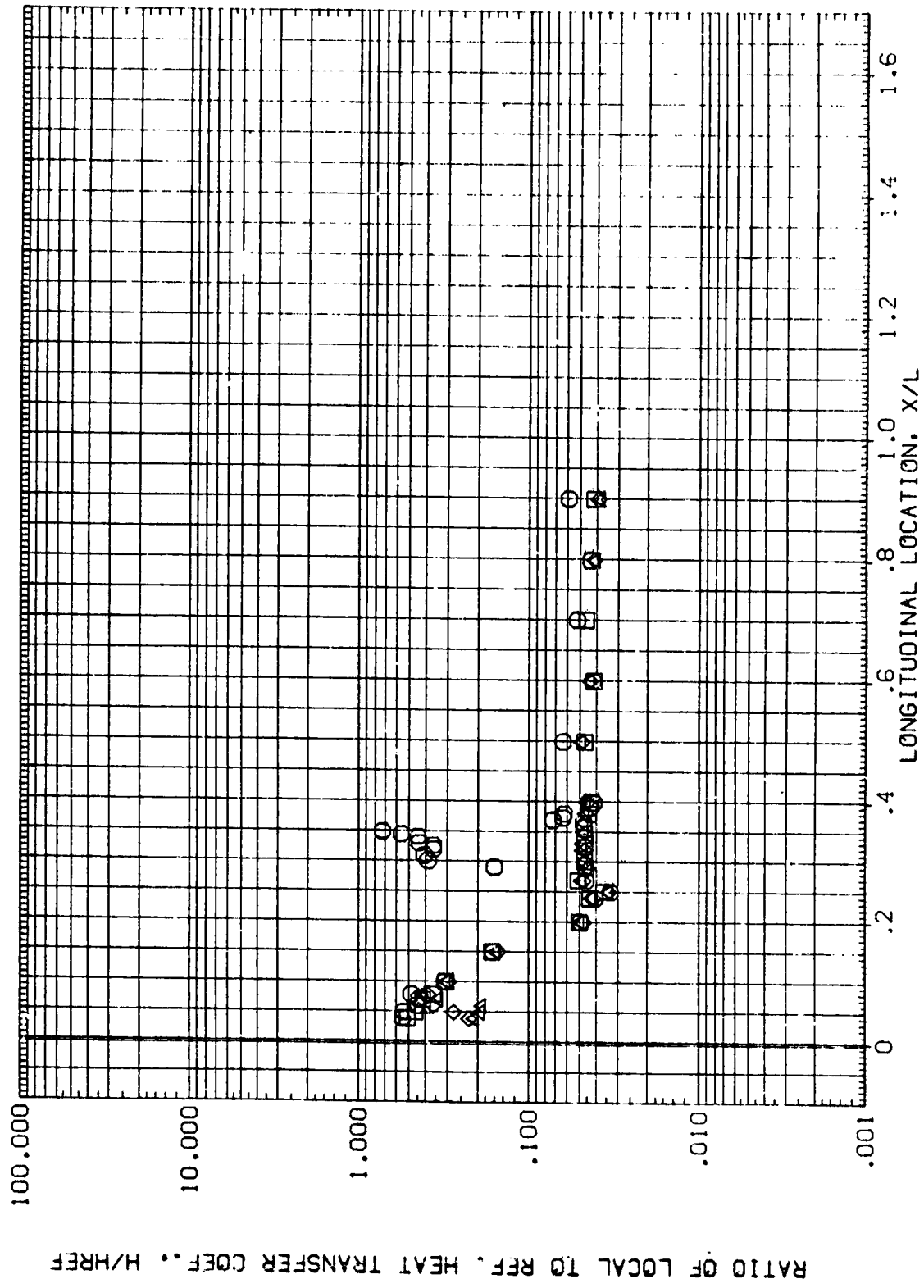


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	.000	.000	5.000
(RNB17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK	.000	.000	5.000
(RNB20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK	.000	.000	5.000
(RNB25)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	.000	.000	5.000

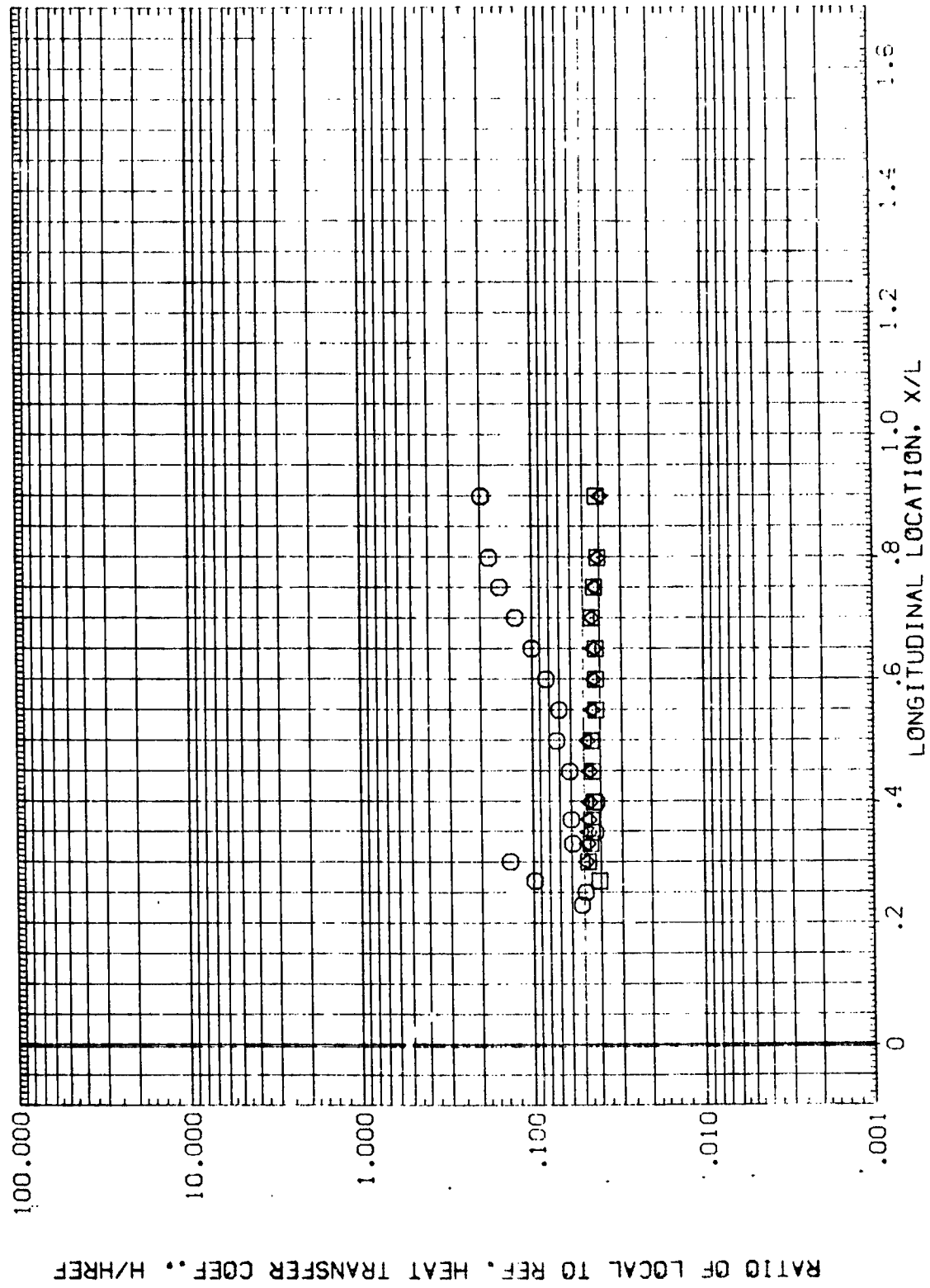


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 112.500 PAGE 476

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB02)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      .000      .000      5.000

(RNB17)      DATA NOT AVAILABLE      .000      .000      5.000

(RNB20)      DATA NOT AVAILABLE      .000      .000      5.000

(RNB25)      DATA NOT AVAILABLE      .000      .000      5.000

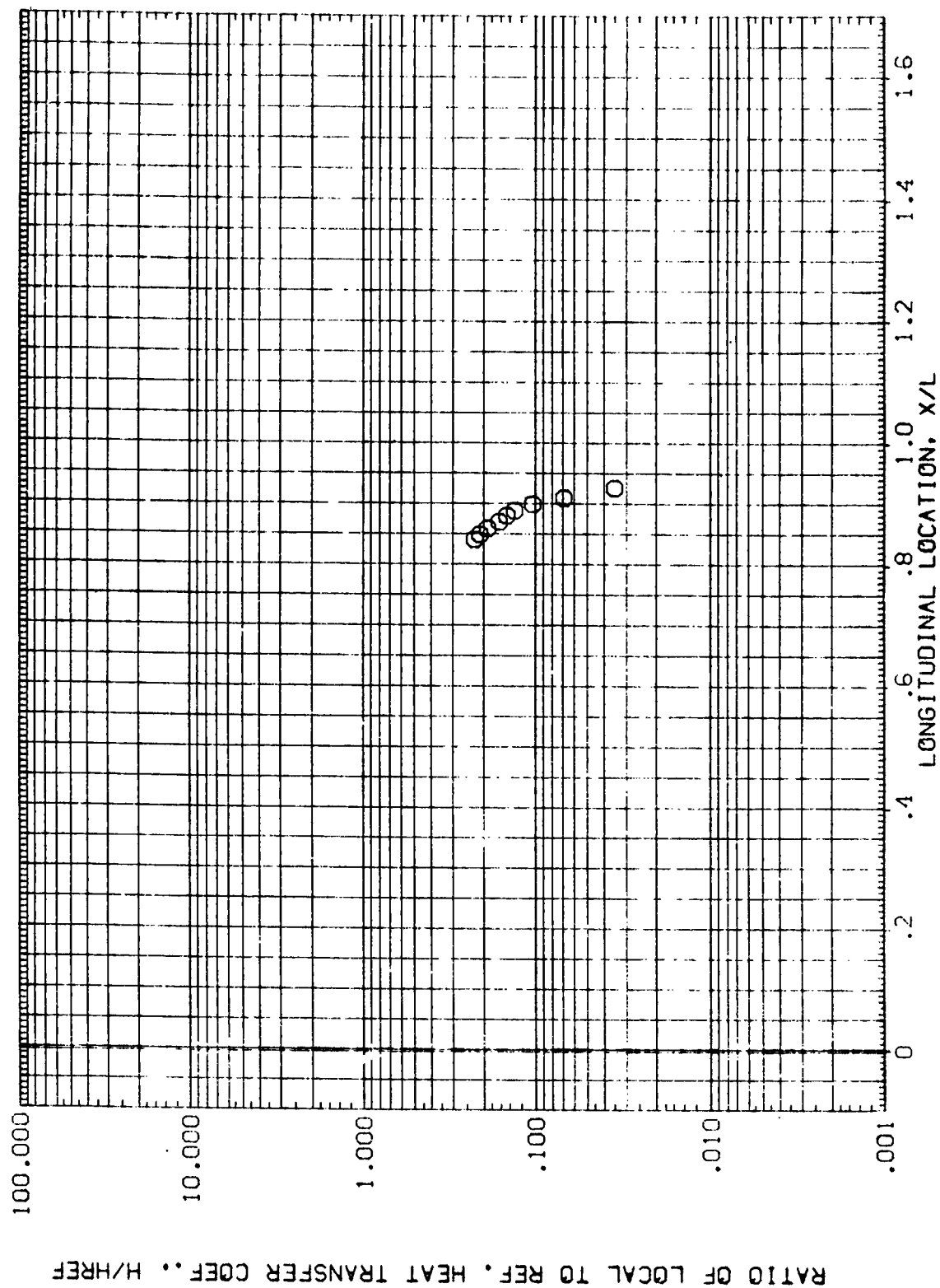


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R1BF02) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (R1BF17) DATA NOT AVAILABLE  
 (R1BF20) DATA NOT AVAILABLE  
 (R1BF25) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

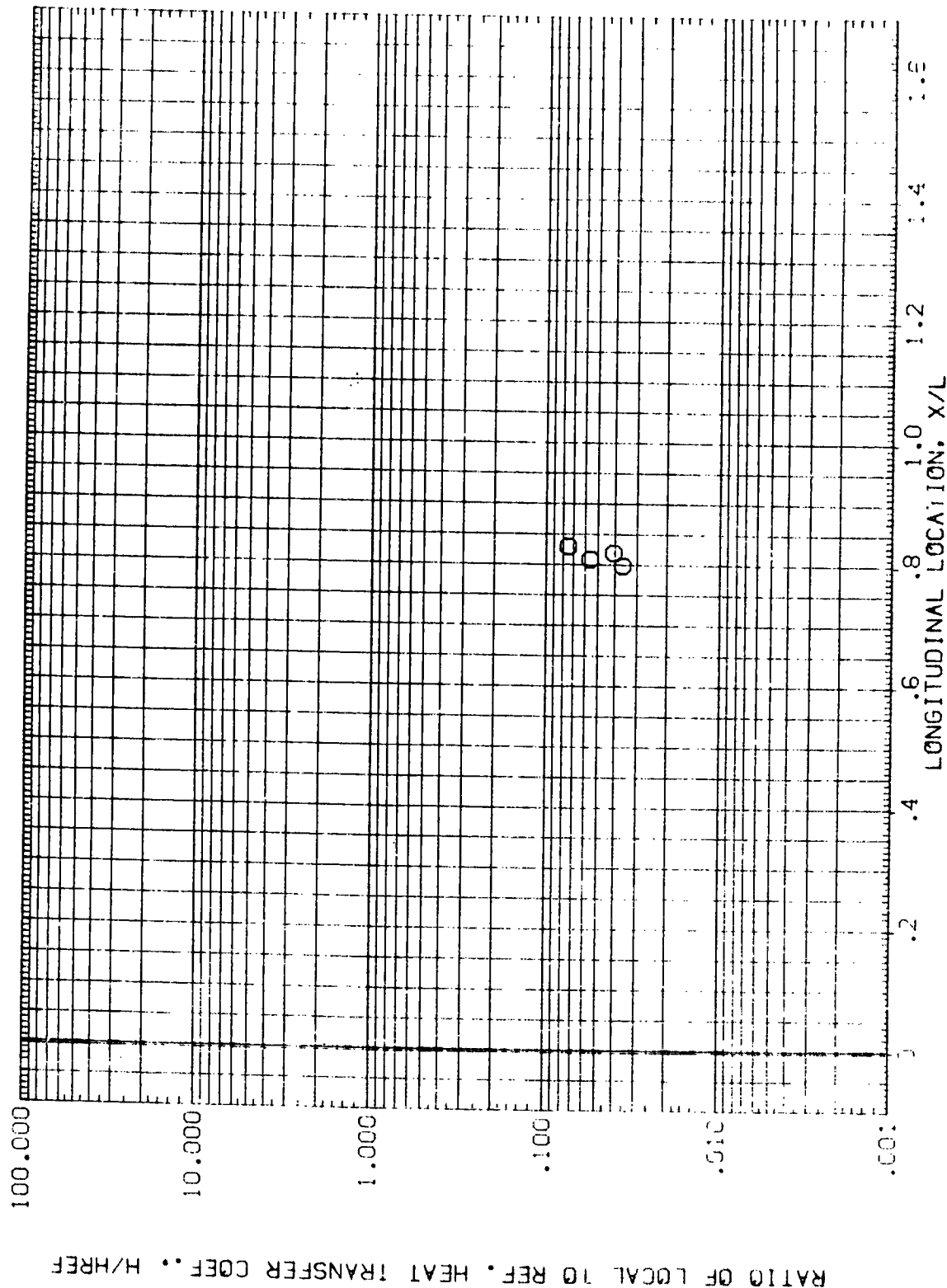


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.000 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO2)	ARC3.5-211C (H48)OTS/NIPPLE/P/TRIP(0+S)	.000	.000	5.000
(RNBFO7)	ARC3.5-211C (H48)ET /NIPPLE/CLEAN	.000	.000	5.000
(RNBFO20)	ARC3.5-211C (H48)ET /OGIVE /CLEAN	.000	.000	5.000
(RNBFO25)	ARC3.5-211C (H48)ET /OGIVE /CLEAN /TRIP	.000	.000	5.000

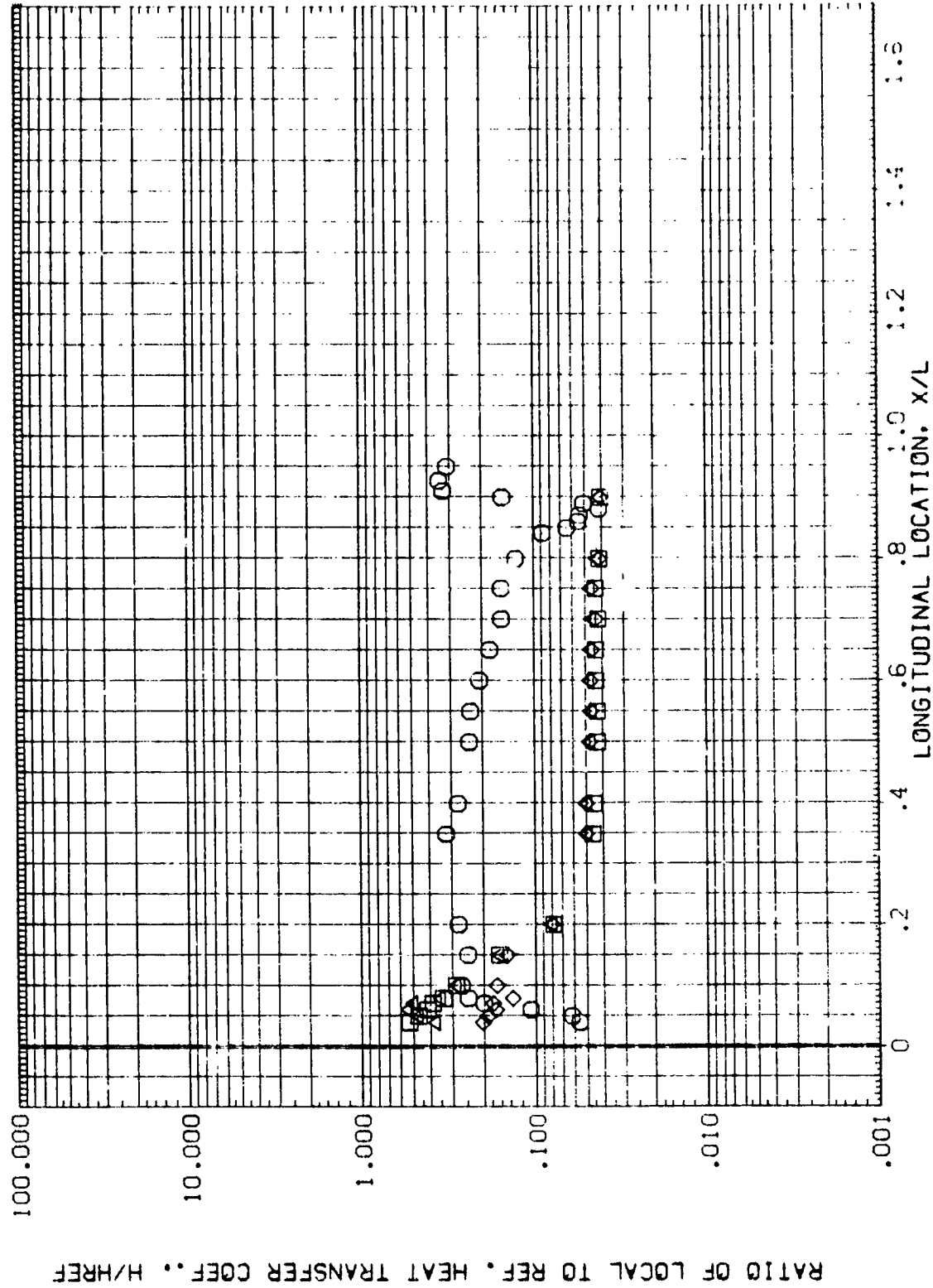


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(RMBF02)    ARC3.5-211(1H49)OTS/NIPPLE/P/TRIP(0-S) EXT TANK    .000    .000    5.000

(RMBF17)    DATA NOT AVAILABLE    .000    .000    5.000

(RMBF20)    DATA NOT AVAILABLE    .000    .000    5.000

(RMBF25)    DATA NOT AVAILABLE    .000    .000    5.000

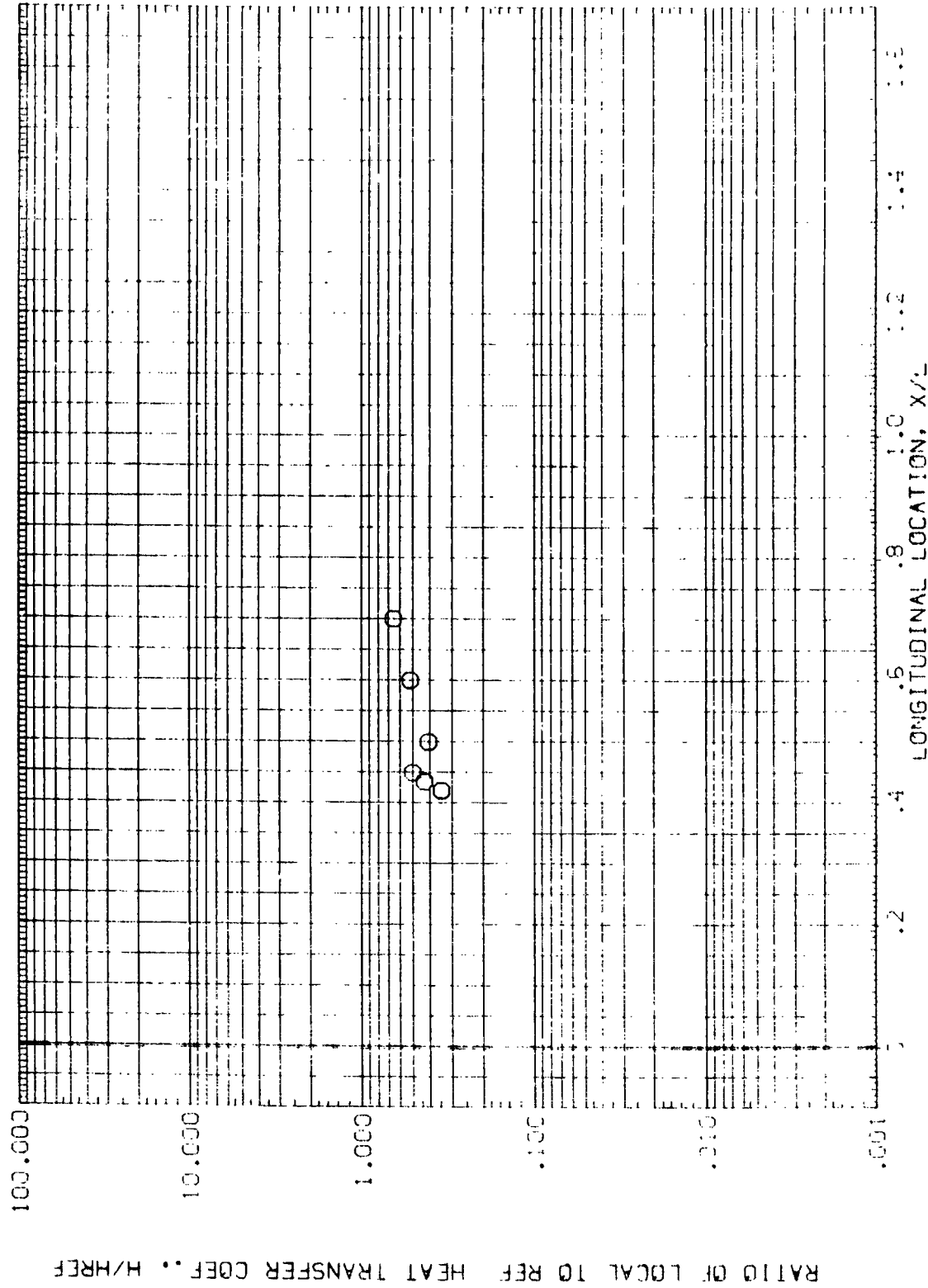


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    HAW HT = .300    PHI = 142.300    PAGE 400

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO2) ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK  
 (RNBFI7) ARC3.5-211C(H48)ET /NIPPLE/CLEAN EXT TANK  
 (RNBFI20) ARC3.5-211C(H48)ET /OGIVE /CLEAN EXT TANK  
 (RNBFI25) ARC3.5-211C(H48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA BETA RN/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

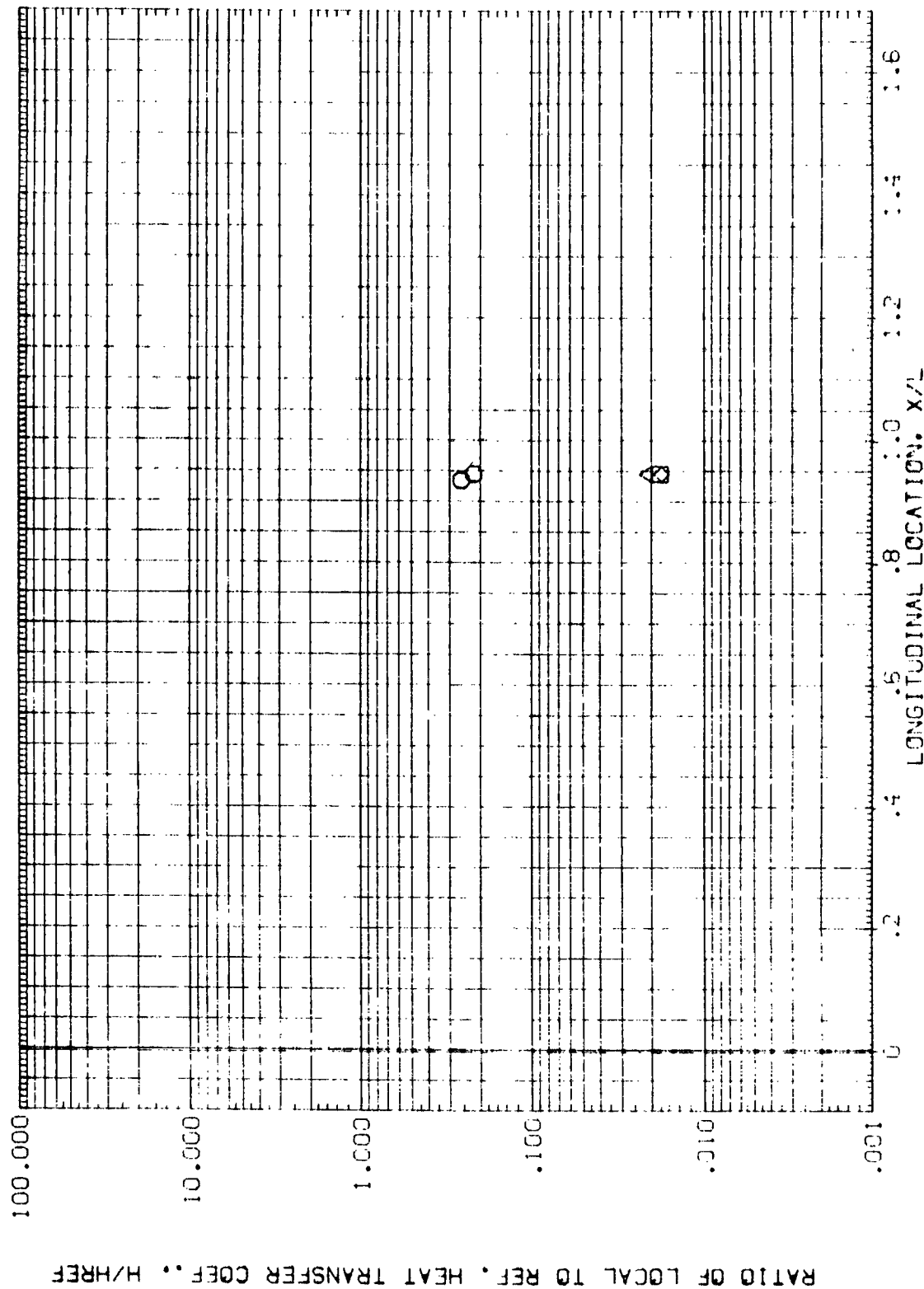


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300  $\mu$  = 4.000  $\rho$  = 1.000  $\mu$  = 154.980

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(R4BF02)    ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    .000    .000    5.000

(R4BF17)    DATA NOT AVAILABLE    .000    .000    5.000

(R4BF20)    DATA NOT AVAILABLE    .000    .000    5.000

(R4BF25)    DATA NOT AVAILABLE    .000    .000    5.000

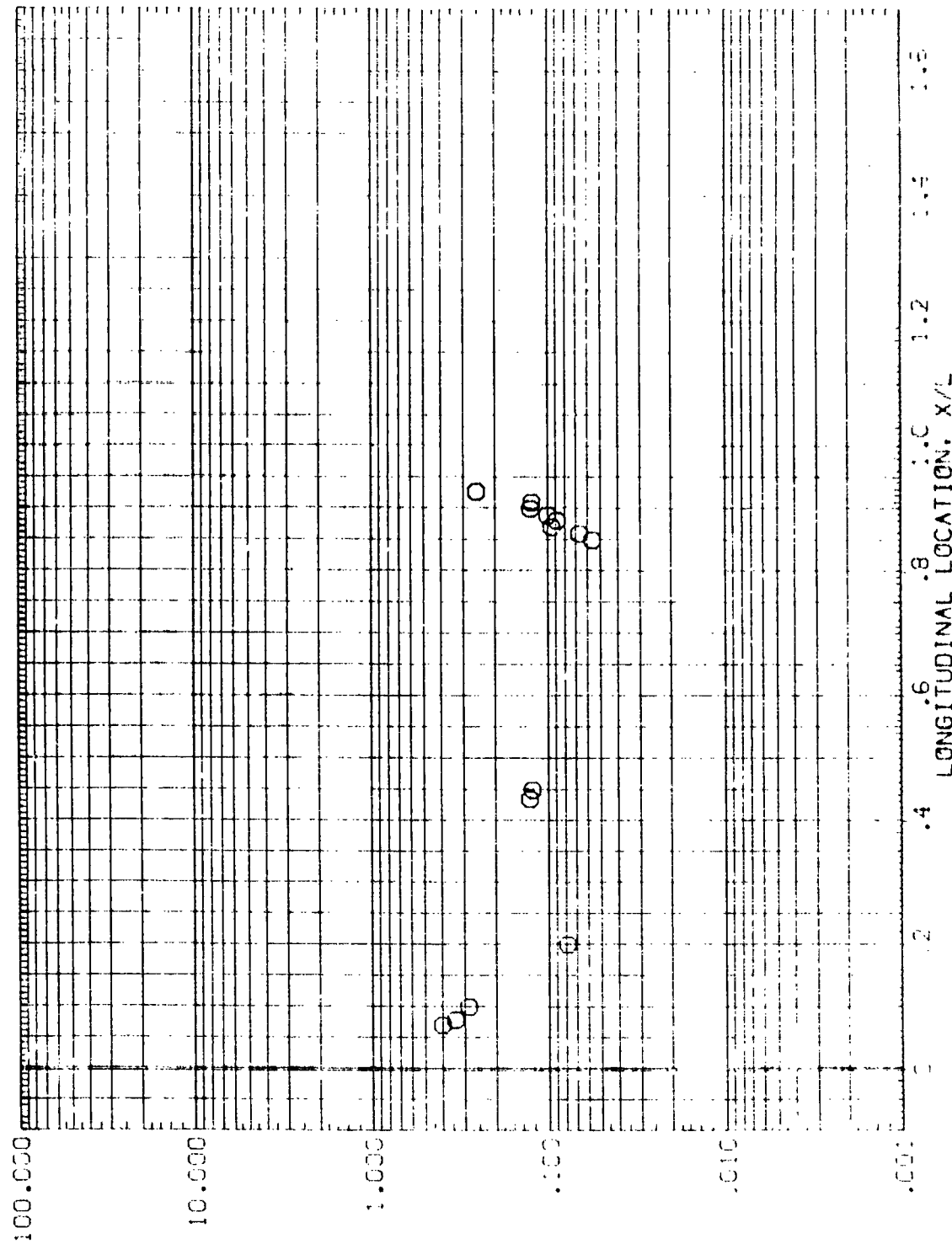


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.500    HAWKETS = .900    PHI = 157.500



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(R1B=02) ARC3-5-211C(IH48)OTS/NIPPLE/P/TR(PO+S) EXT TANK  
(R1B=17) DATA NOT AVAILABLE  
(R1B=20) DATA NOT AVAILABLE  
(R1B=25) DATA NOT AVAILABLE

ALPHA BETA  $B/X/L$   
.000 .000 5.000  
.000 .000 5.000  
.000 .000 5.000

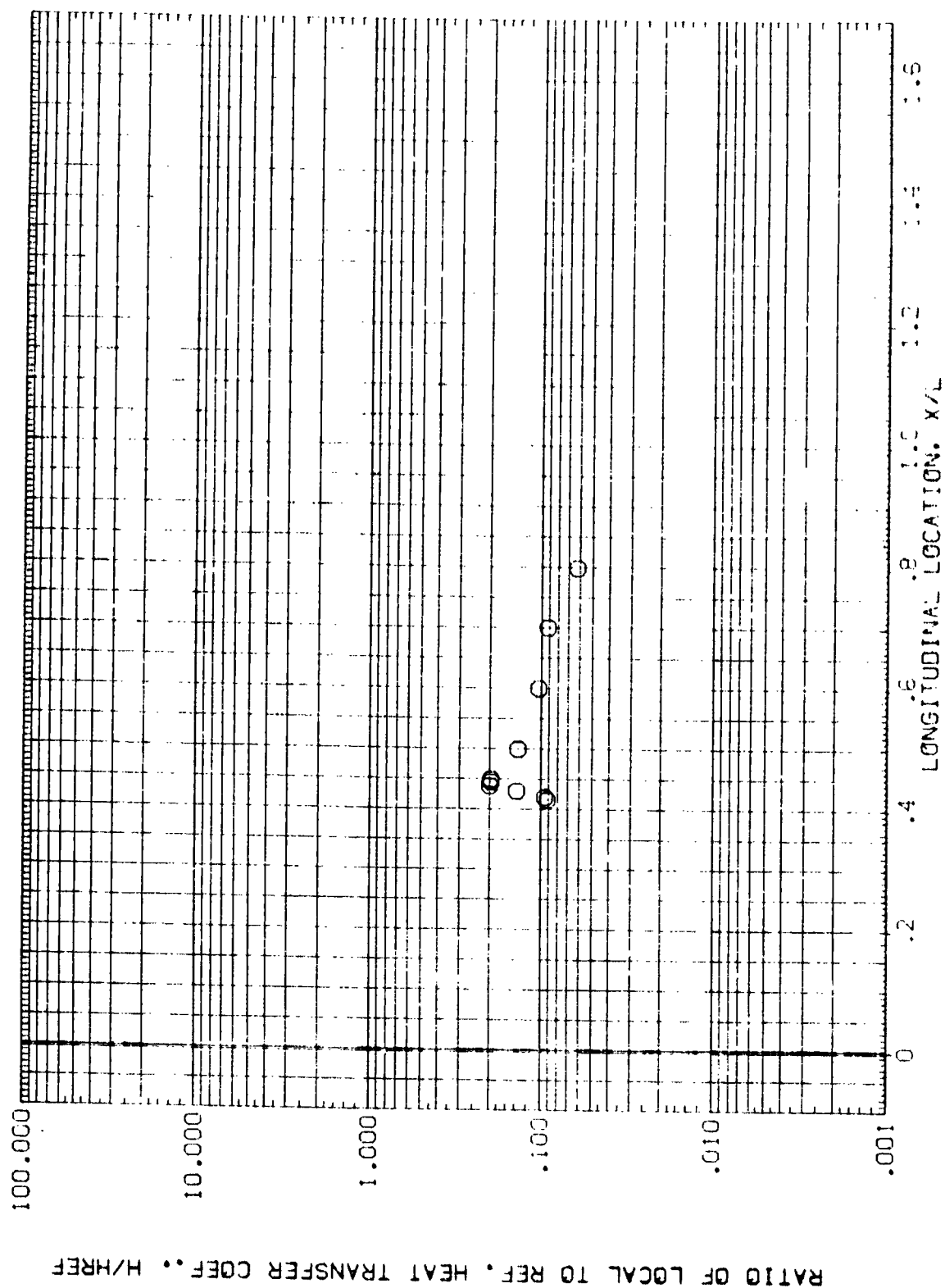


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300  $HAW/H_T = .800$   $PR_1 = 153.100$

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RANGE 1) APC3-5-211(148)OTS/N:PPLE/P/TRIP(C-S) EXT TANK  
 (RANGE 17) DATA NOT AVAILABLE  
 (RANGE 20) DATA NOT AVAILABLE  
 (RANGE 25) DATA NOT AVAILABLE

ALPHA BETA GAMMA  
 .000 .000 .000  
 .000 .000 .000  
 .000 .000 .000

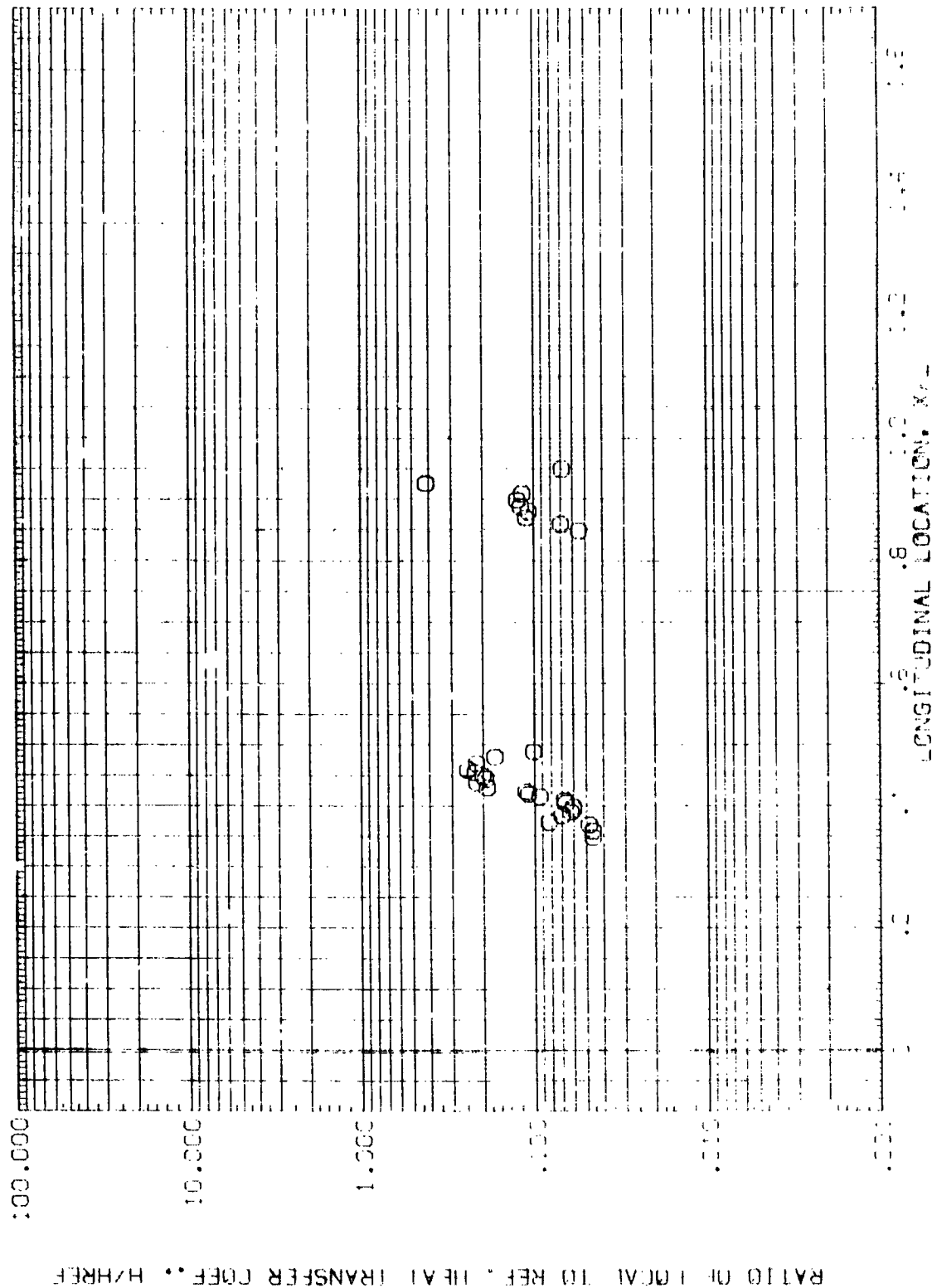


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

RANGE = 5.000 RANGE 17 = 1.000 RANGE 20 = 1.000 RANGE 25 = 1.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	REYNOLDS
ARC3.5-2111H48)OTS/N:PPLE/P/TRIP(O-S)	EXT TANK	.000	.002	5.000
ARC3.5-2111H48)ET /N:PPLE/CLEAN	EXT TANK	.000	.000	5.000
ARC3.5-2111H48)ET /OGIVE /CLEAN	EXT TANK	.000	.000	5.000
ARC3.5-2111H48)ET /OGIVE /TRIP	EXT TANK	.000	.000	5.000

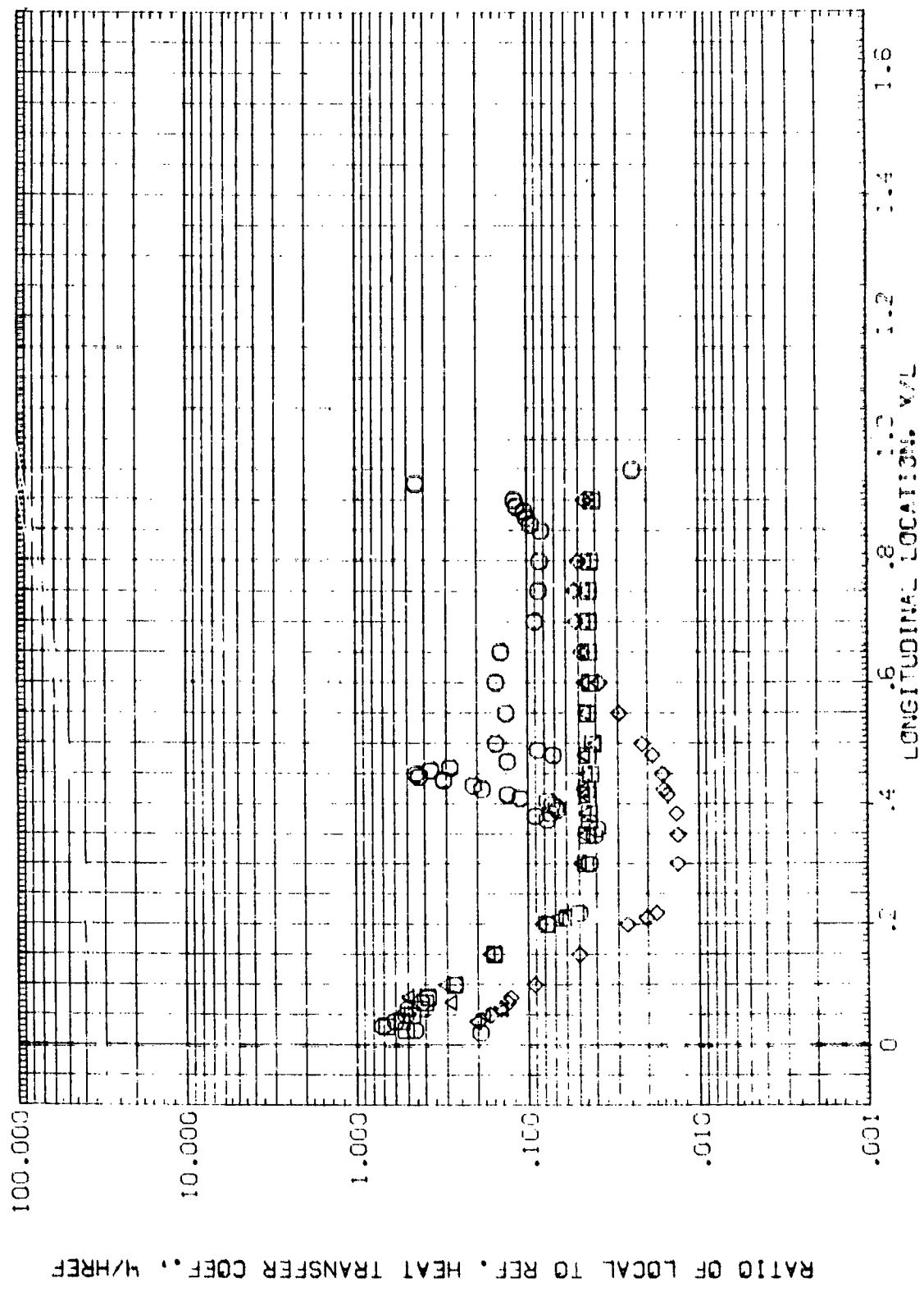


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

# DATA SET SIM33L CONFIGURATION DESCRIPTION

(R18F02) APC3.5-2111(148)JTS/NIPPLE/TPIP(C+S) EAT TANK  
 (R18F17) APC3.5-2111(148)JET /NIPPLE/CLEAN EAT TANK  
 (R18F20) APC3.5-2111(148)JET /GGIVE /CLEAN EAT TANK  
 (R18F25) APC3.5-2111(148)JET /GGIVE /CLEAN JTRIP EAT TANK

ALPHA BETA  
 .000 .000  
 .000 .000  
 .000 .000  
 .000 .000

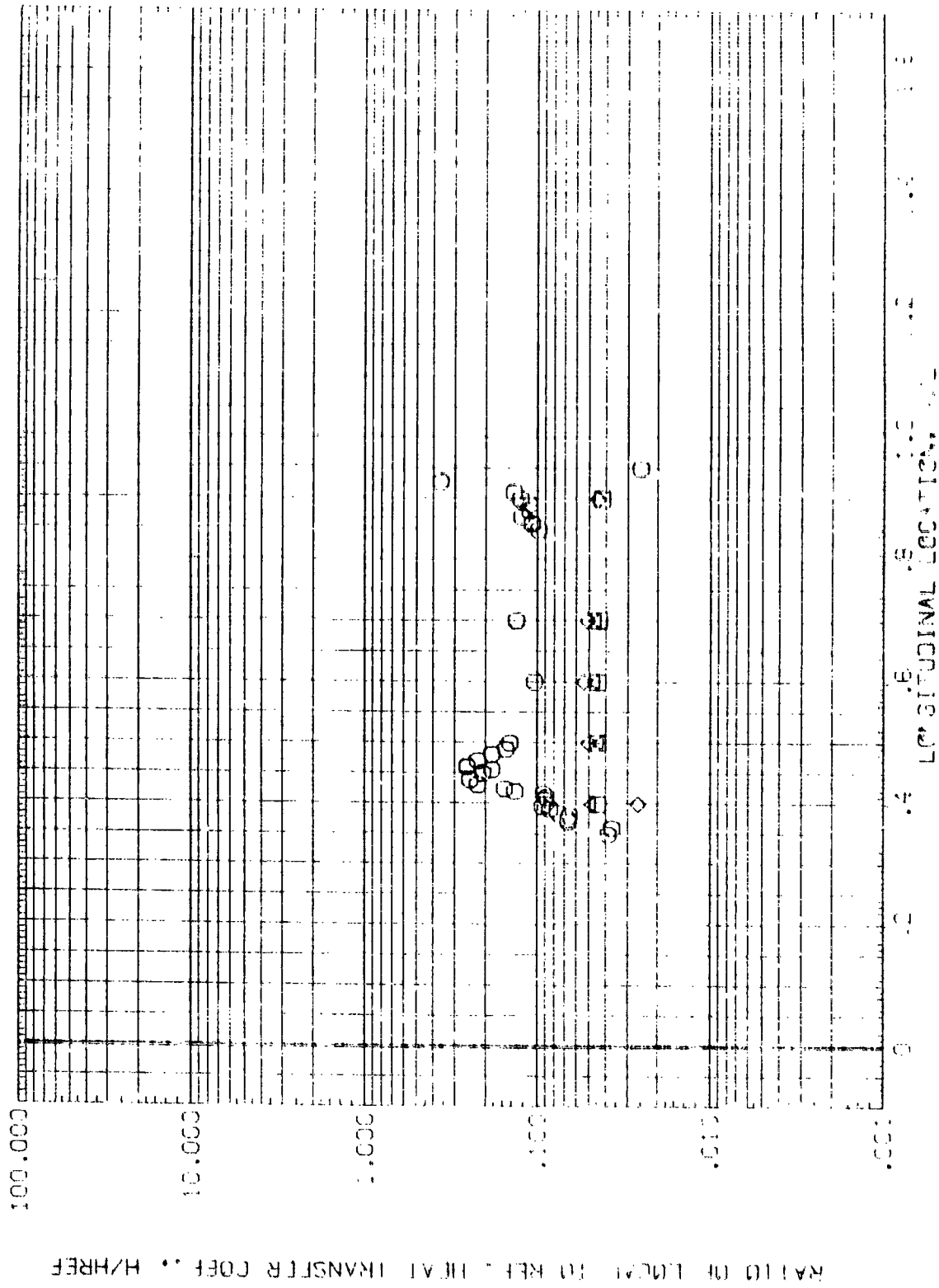


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.000 H/W HT = 1.000 E-1 = 191.250

DATE 1955

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RV/L
(RNB02)	ARC3-5-211 (1H48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK	.000	.000	5.000
(RNB17)	DATA NOT AVAILABLE	.000	.000	5.000
(RNB20)	DATA NOT AVAILABLE	.000	.000	5.000
(RNB25)	DATA NOT AVAILABLE	.000	.000	5.000

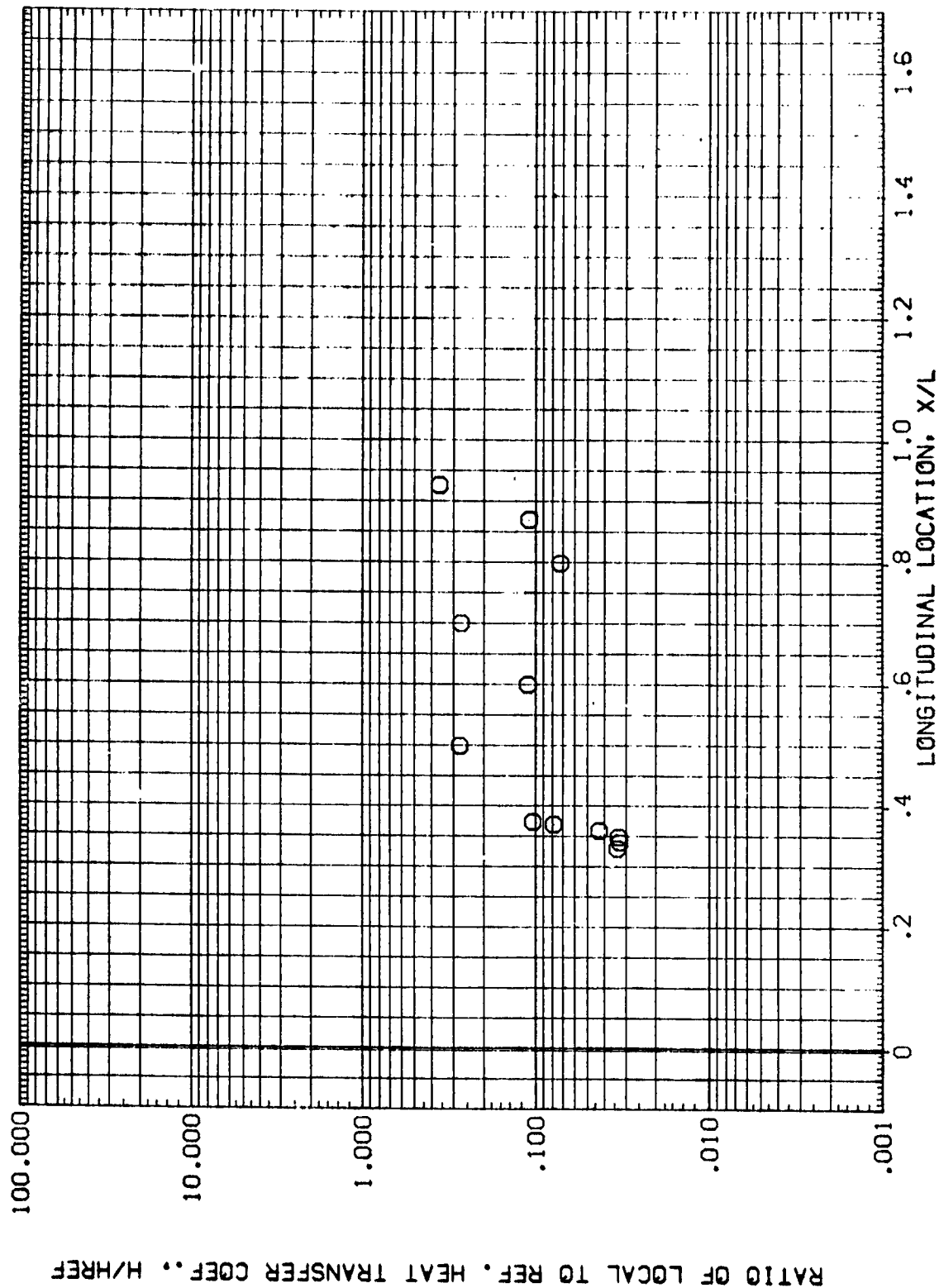


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 197.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK	.000	.000	5.000
(RNB17)	DATA NOT AVAILABLE	.000	.000	5.000
(RNB20)	DATA NOT AVAILABLE	.000	.000	5.000
(RNB25)	DATA NOT AVAILABLE	.000	.000	5.000

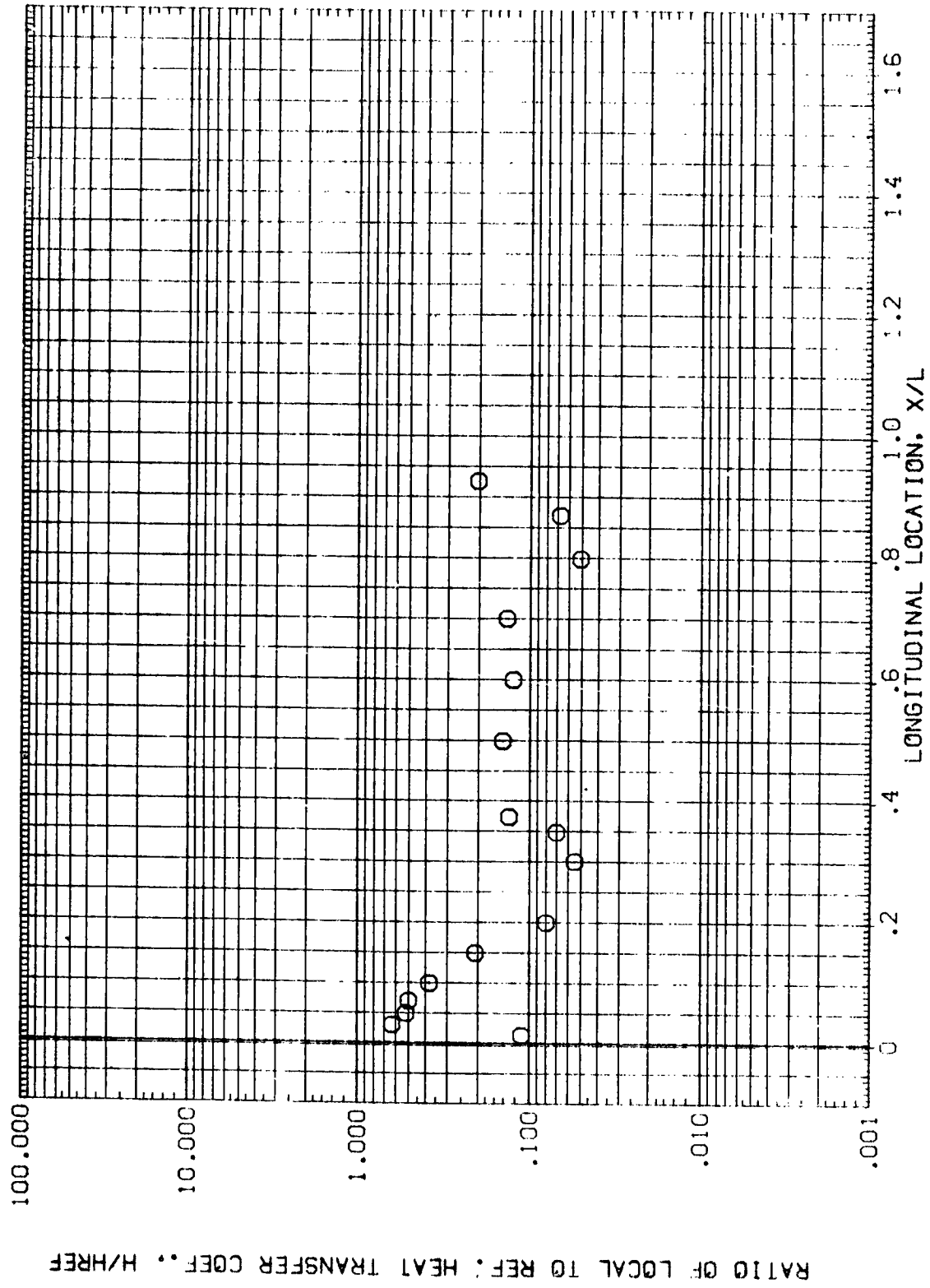


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNB02)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	EXT TANK	ALPHA	BETA	RN/L
(RNB17)	ARC3.5-211(IH48)ET /NIPPLE/CLEAN	EXT TANK	.000	.000	5.000
(RNB20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	EXT TANK	.000	.000	5.000
(RNB25)	ARC3.5-211(IH48)ET /OGIVE /TRIP	EXT TANK	.000	.000	5.000

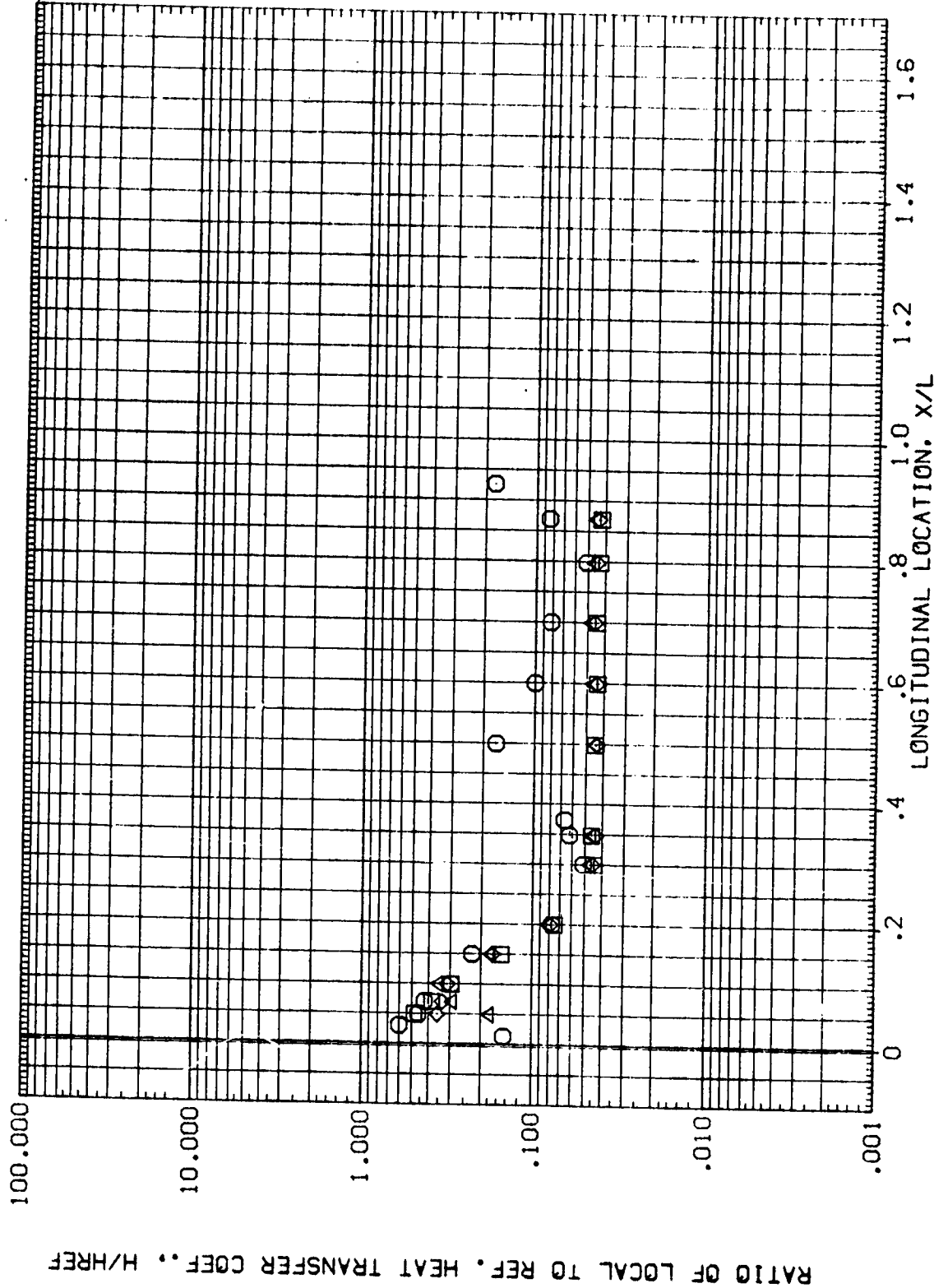


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(RNBFO3)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)    -5.000    .000    5.000

(RNBFI8)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN    -5.000    .000    5.000

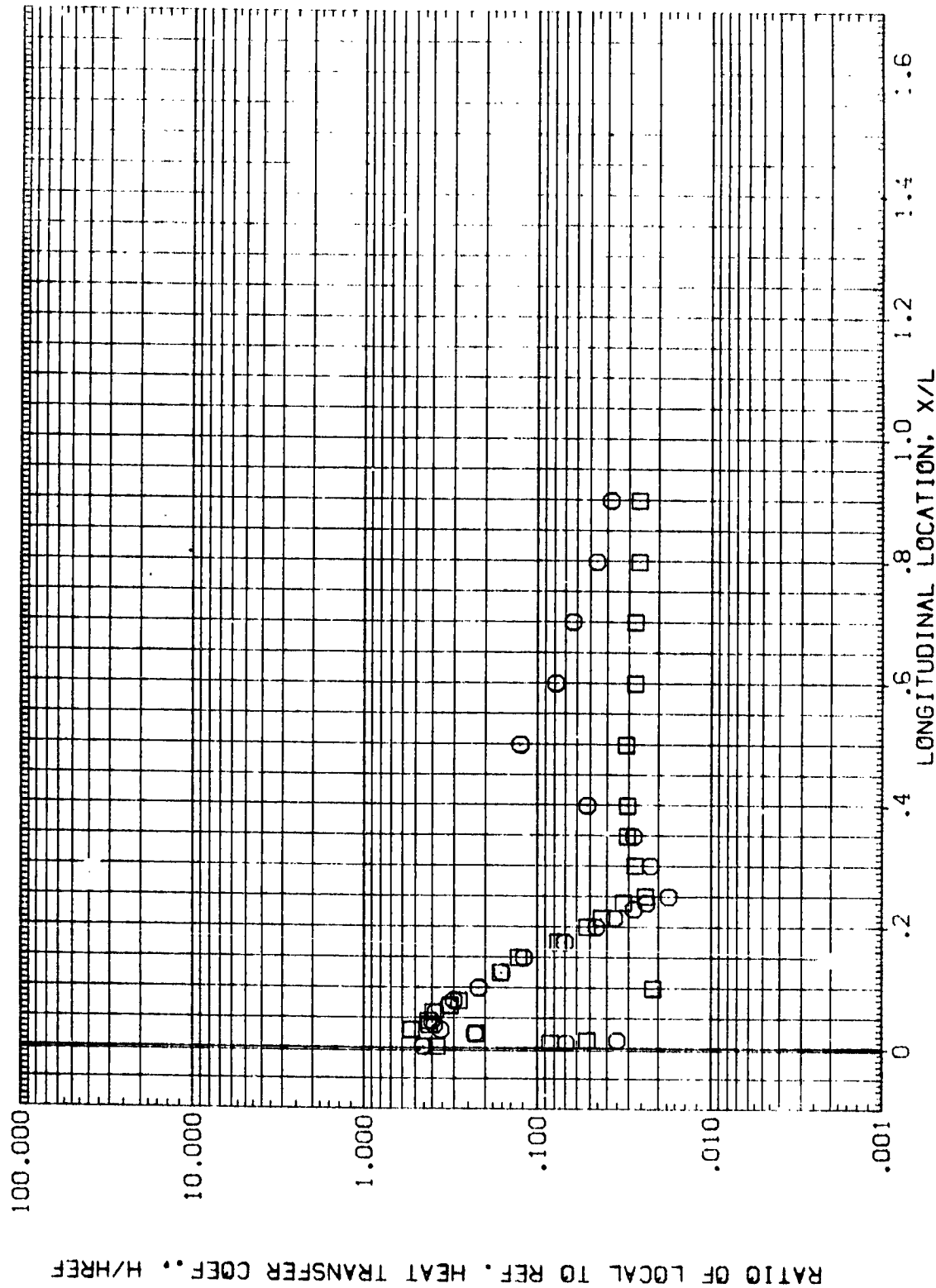


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = .000



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO3) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFI8) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

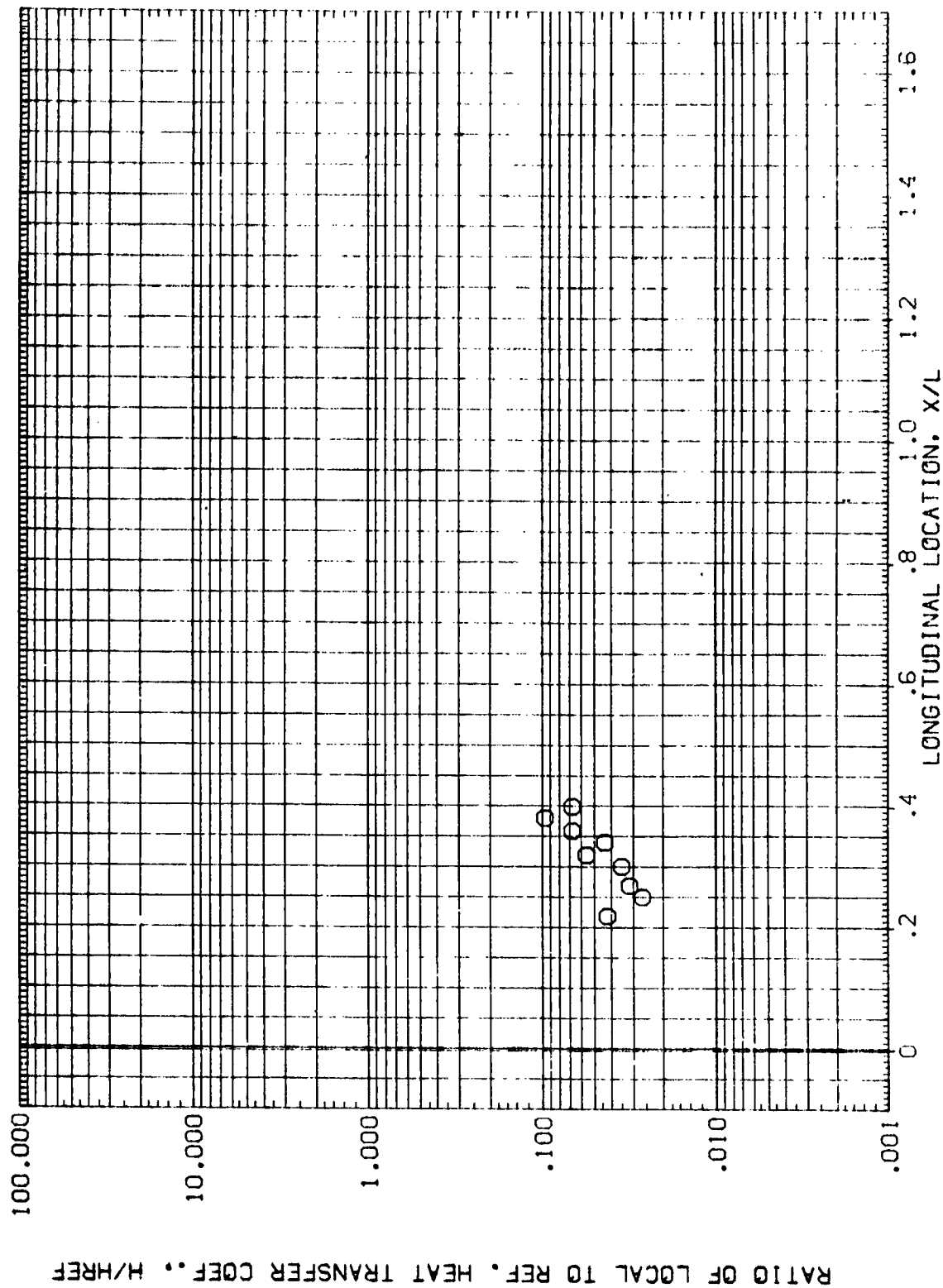


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RV/L  
 (RNBFO3) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK -5.000 .000 5.000  
 (RNBFI8) ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK -5.000 .000 5.000

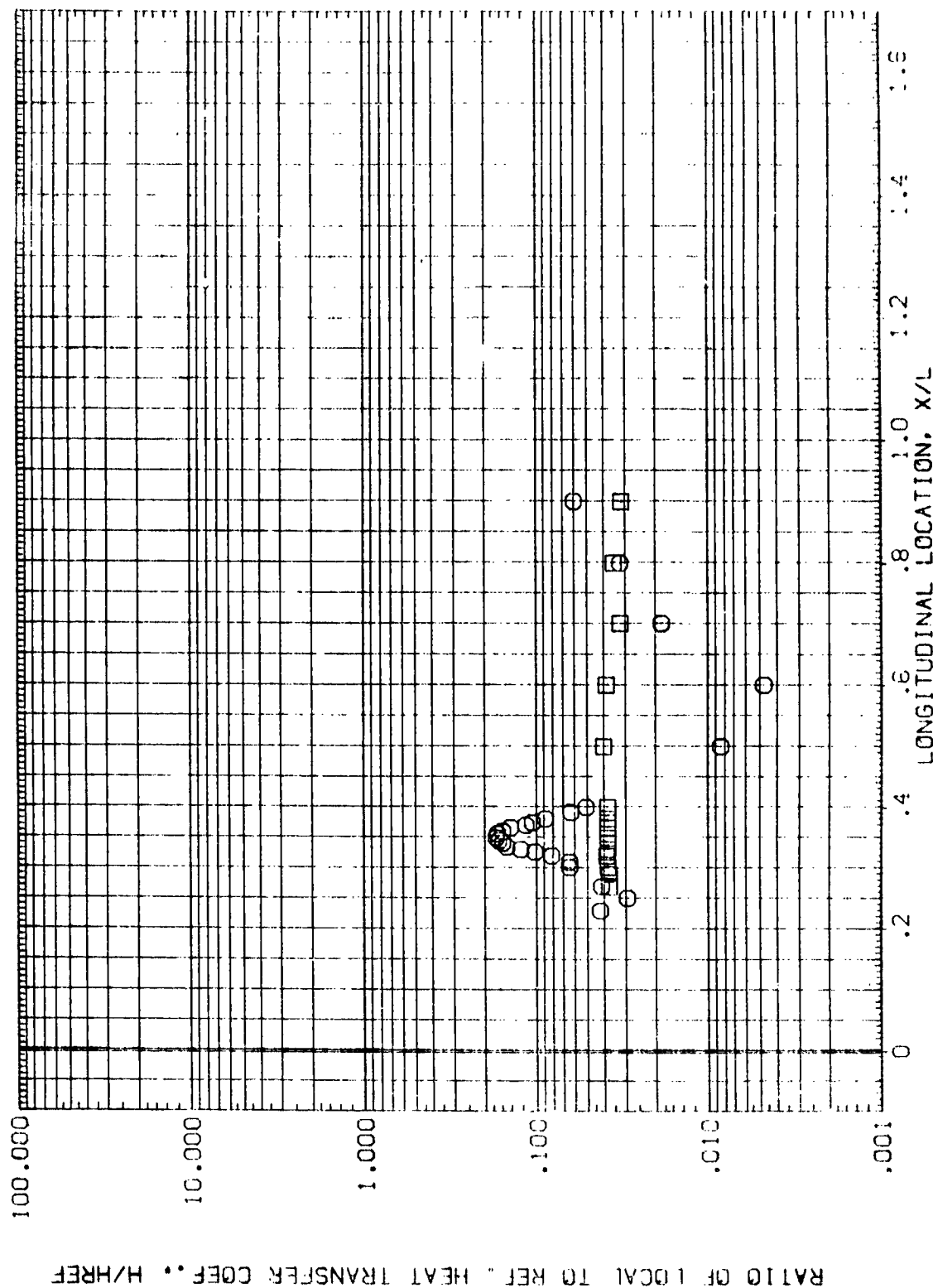


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .300 P-H = 67.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNSFC3) ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNSF18) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

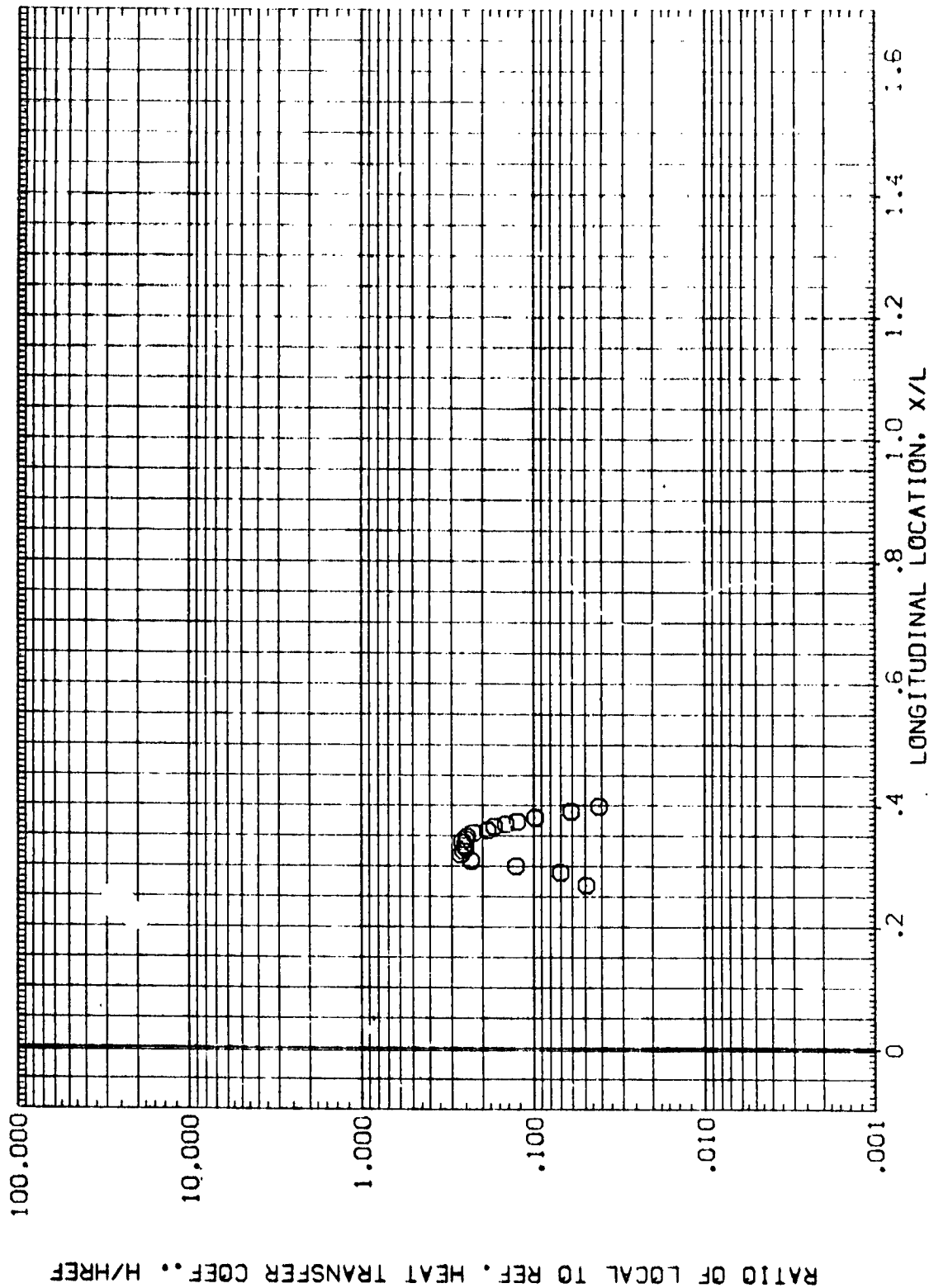


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (R-REF03)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    -5.000    .000    5.000  
 (RNBF18)    ARC3.5-211(IH48)ET/NIPPLE/CLEAN    -5.000    .000    5.000

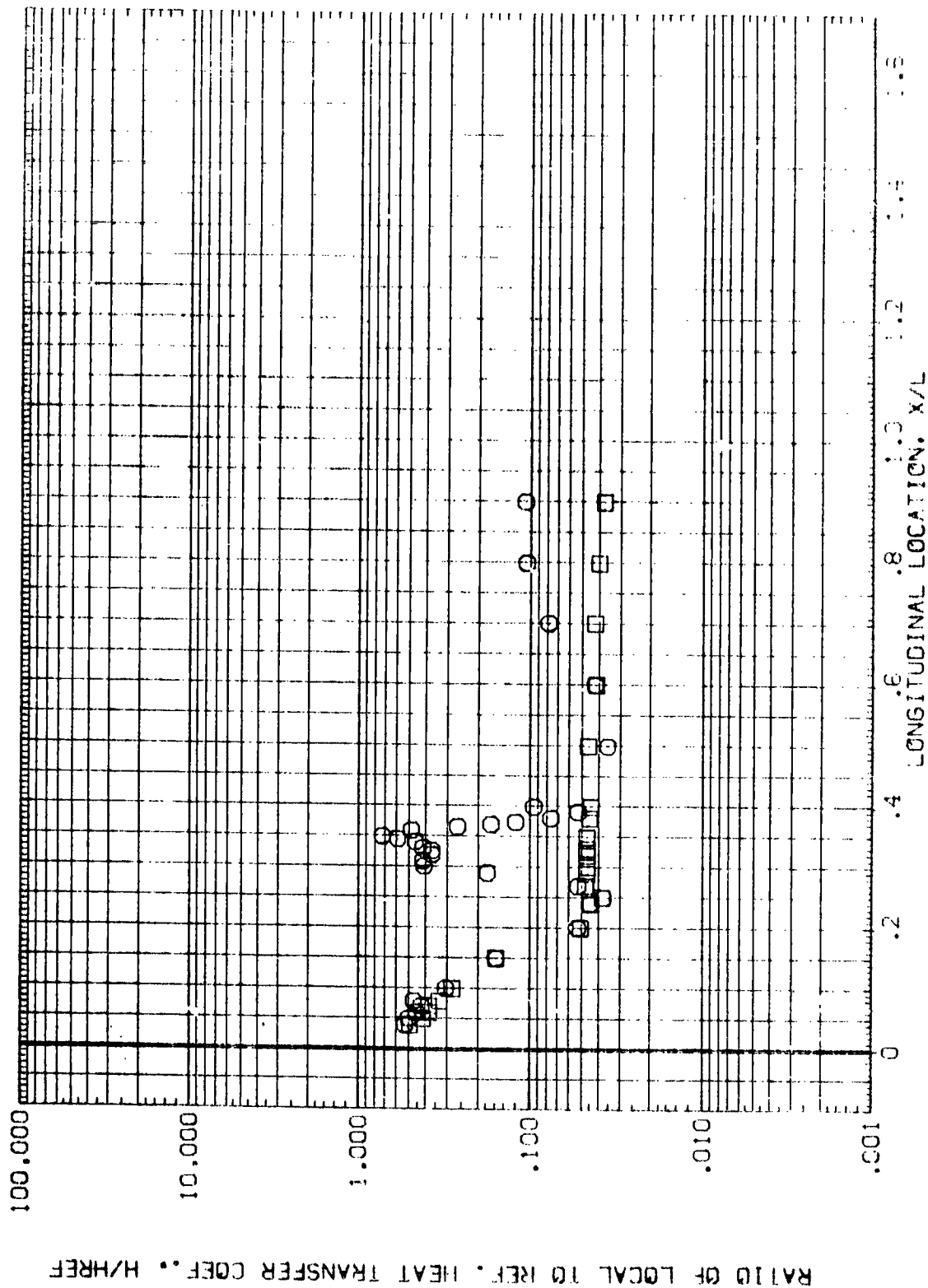


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .300    PHI = 90.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA     $R_{N/L}$   
 (RNG503)    ARC3.5-211(I48)OTS-NIPPLE/P/TRIP(O+S)    -5.000    .000    5.000  
 (RNG518)    ARC3.5-211(I48)ET /NIPPLE/CLEAN    -5.000    .000    5.000

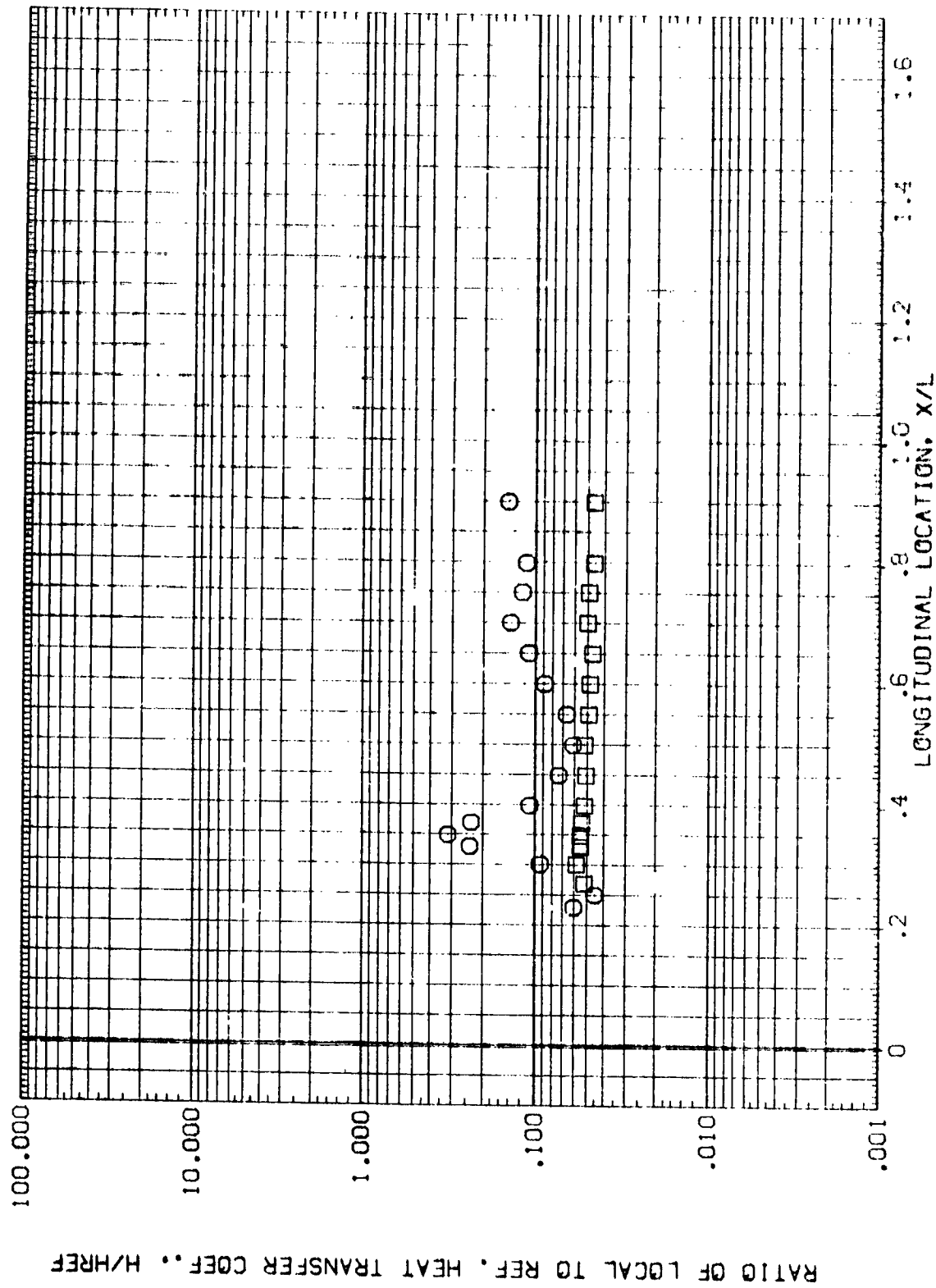


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    HAW/HREF = .900    PHI = 112.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO3) ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFI8) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

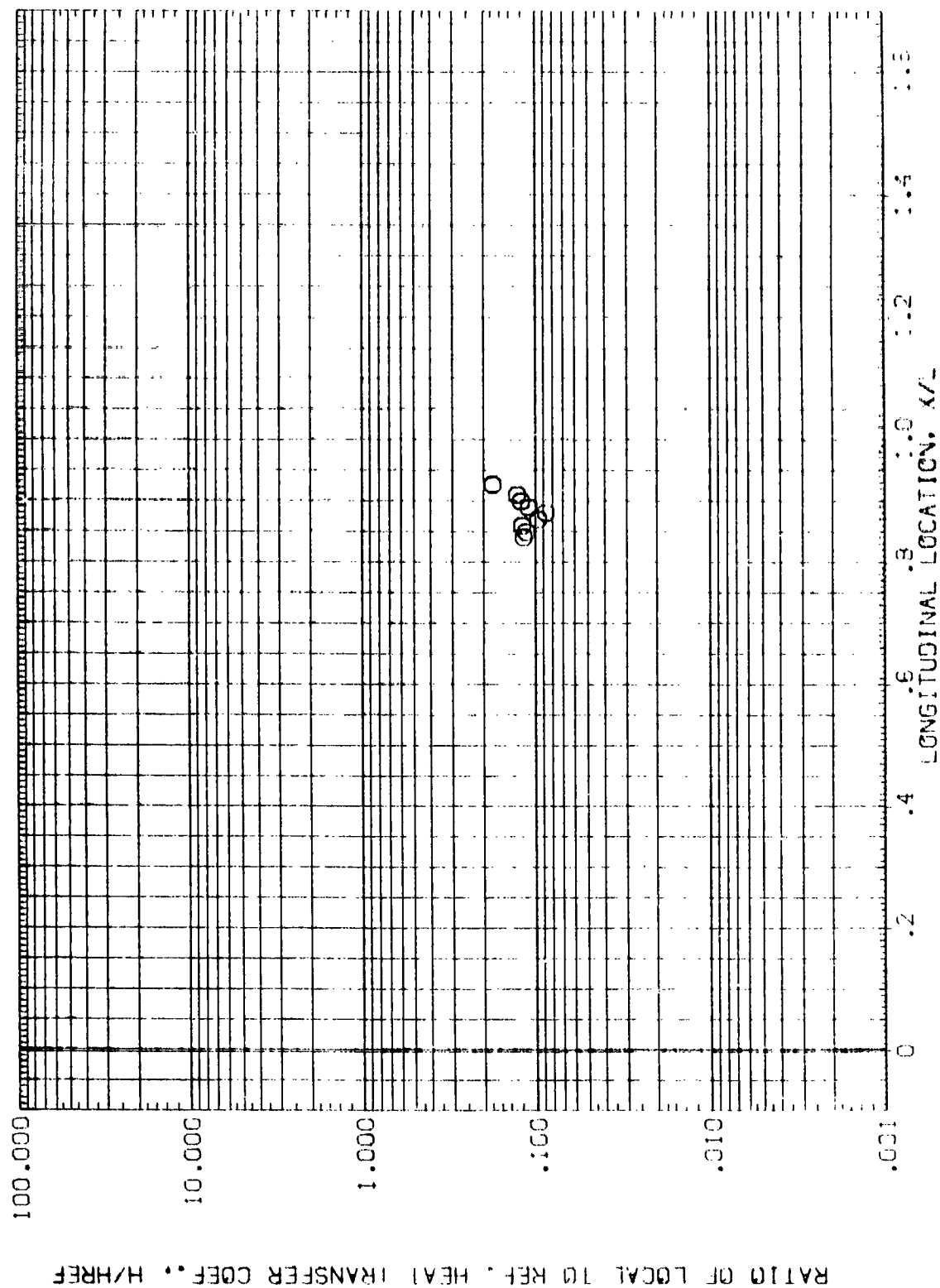



FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .500 PHI = 125.400

DATA SET SYMBOL:  CONFIGURATION DESCRIPTION  
 (RNG3503) ARC3-5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNG518) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

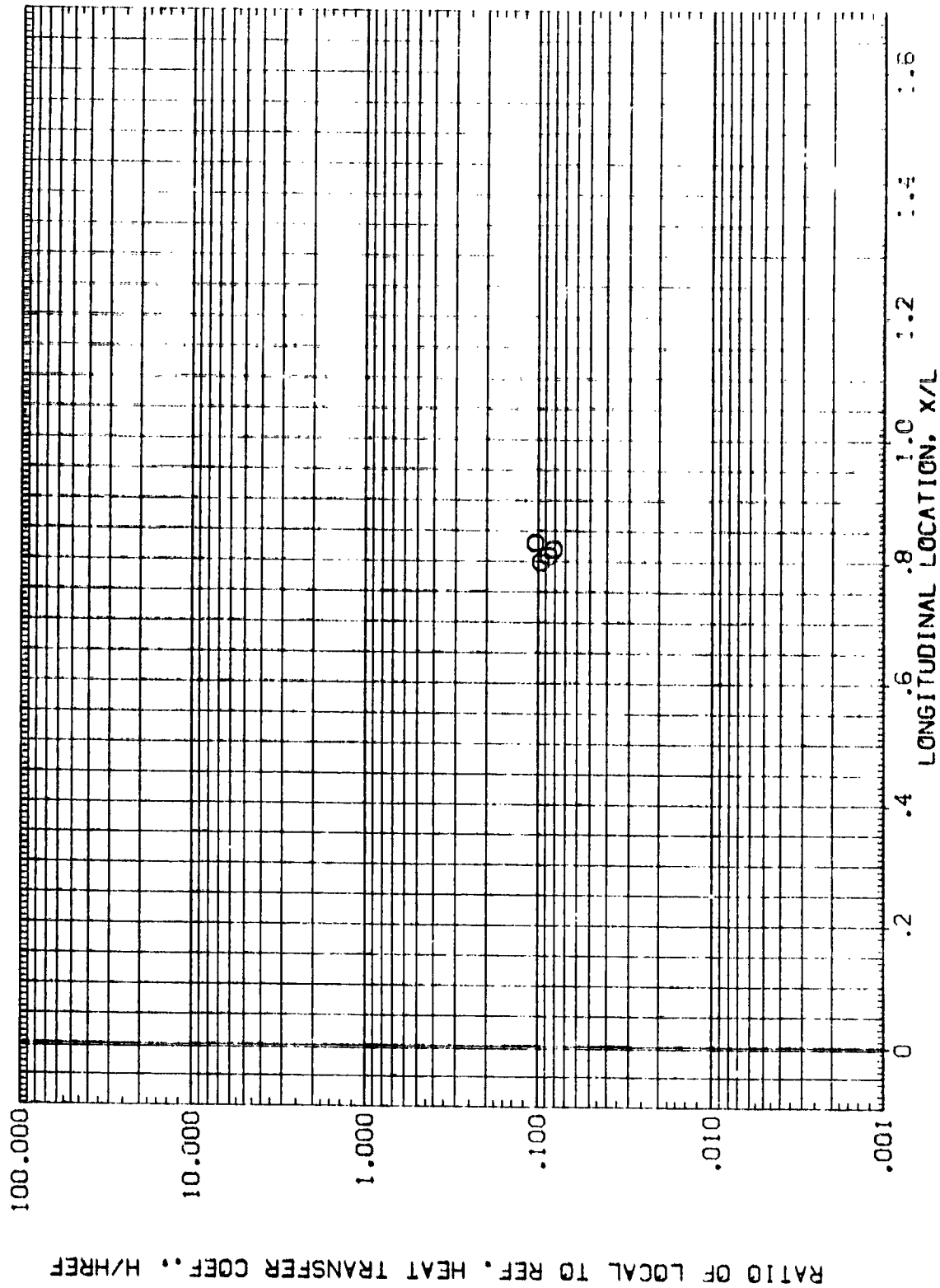


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RAW L  
 (RNBFO3)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)    EXT TANK    -5.000    .000    5.000  
 (RNBFI6)    ARC3.5-211(IH48)JET /NIPPLE/CLEAN    EXT TANK    -5.000    .000    5.000

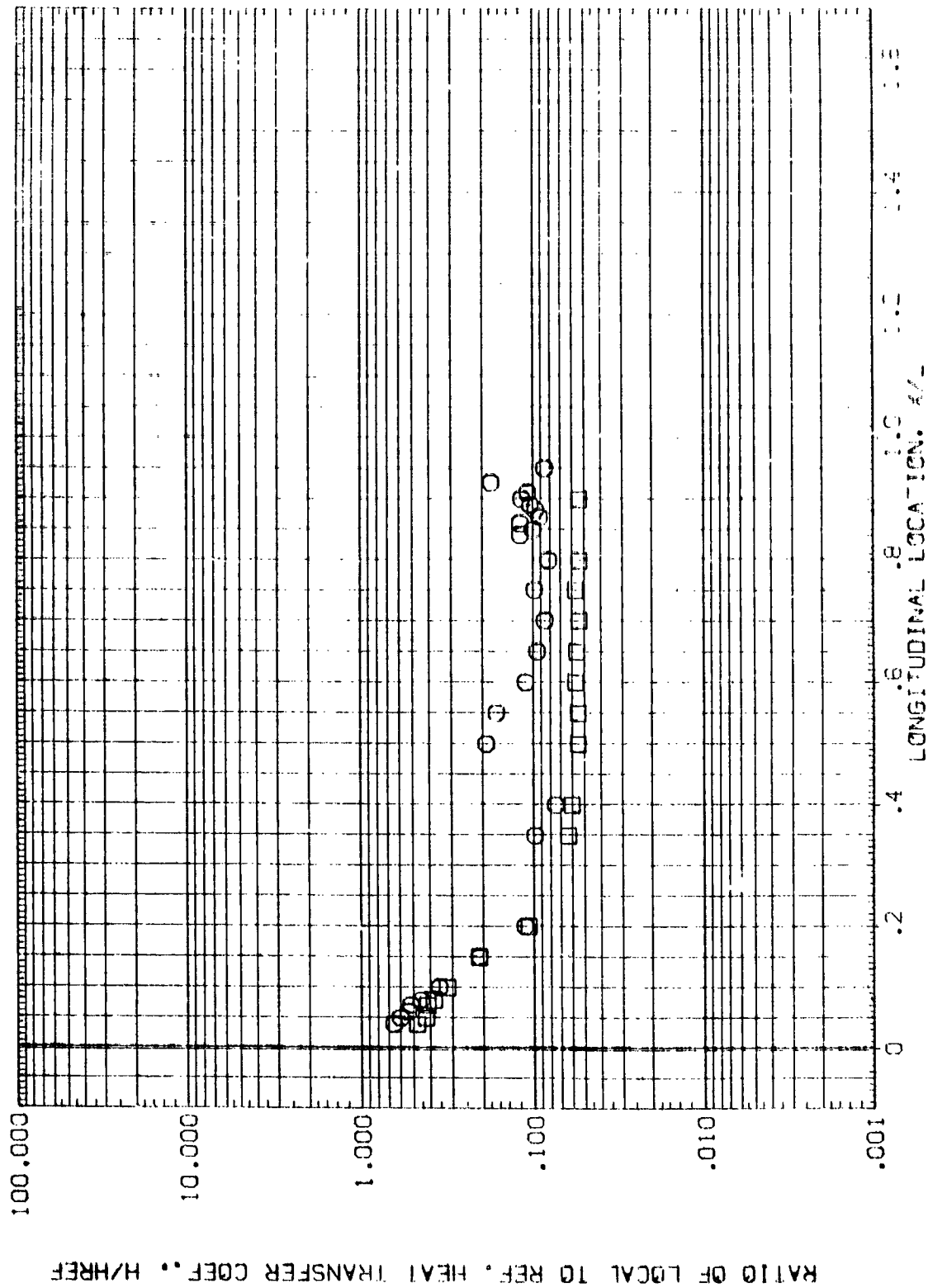


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    H<sub>AW</sub>/H<sub>T</sub> = .900    PHI = 155.000    PAGE 438



DATA SET SYMBOL: CONFIGURATION DESCRIPTION  
 (R33F03) ARC3-S-211(1448)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (R33F18) DATA NOT AVAILABLE

ALPHA BETA P<sub>W/L</sub>  
 -5.000 .000 5.000  
 -5.000 .000 5.000

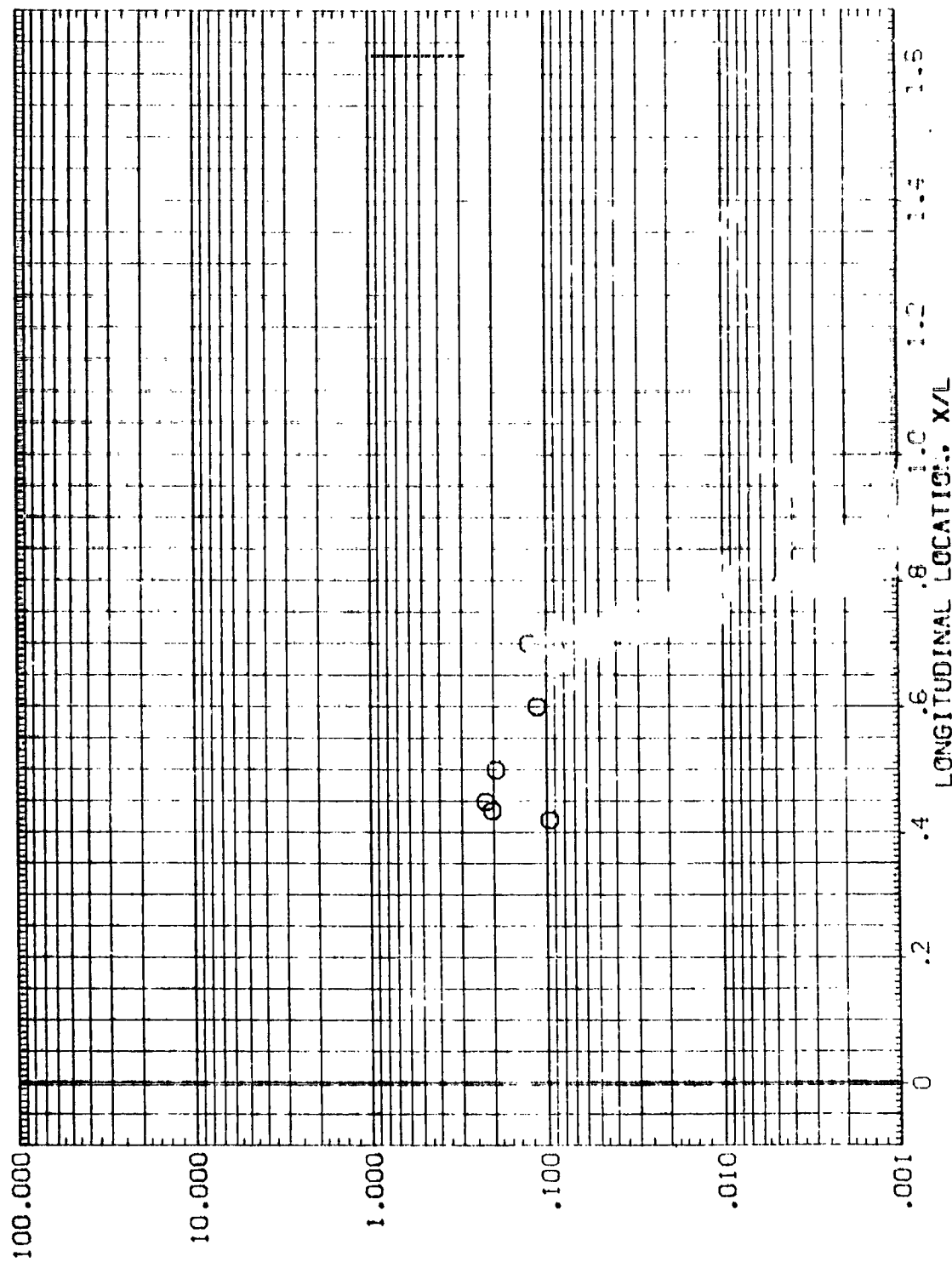


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 P<sub>AW</sub>/P<sub>REF</sub> = .900 P<sub>HI</sub> = 142.3.5

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RM/L

(RMBF03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S)      EXT TANK      -5.000      .000      5.000

(RMBF18)      ARC3.5-211(IH48)JET /NIPPLE/CLEAN      EXT TANK      -5.000      .000      5.000

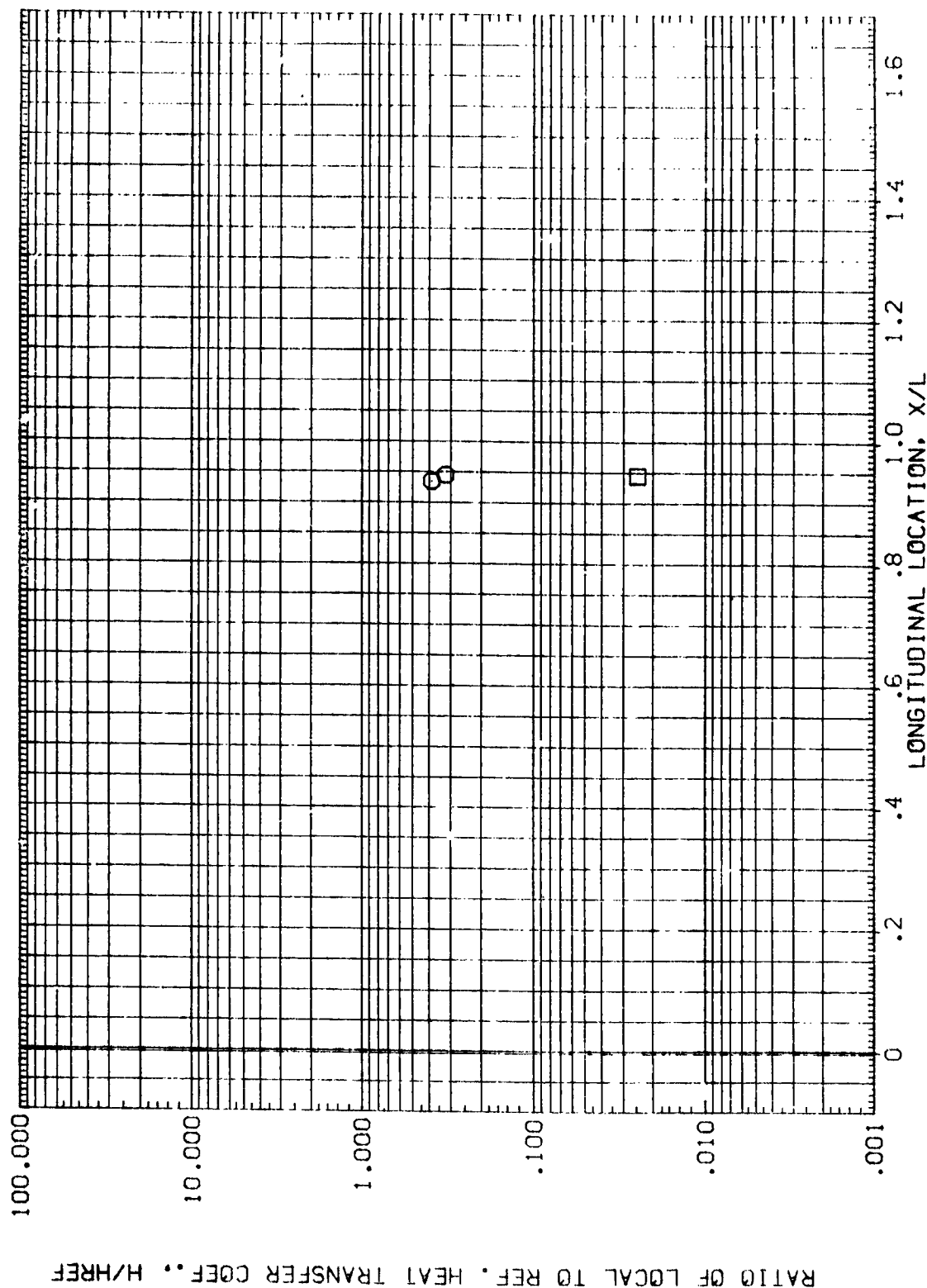


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300      HAW/HI = .900      PHI = 154.980

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
(RNGF03) □ ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
(R'JF18) DATA NOT AVAILABLE

ALPHA BETA RV/L  
-5.000 .000 5.000  
-5.000 .000 5.000

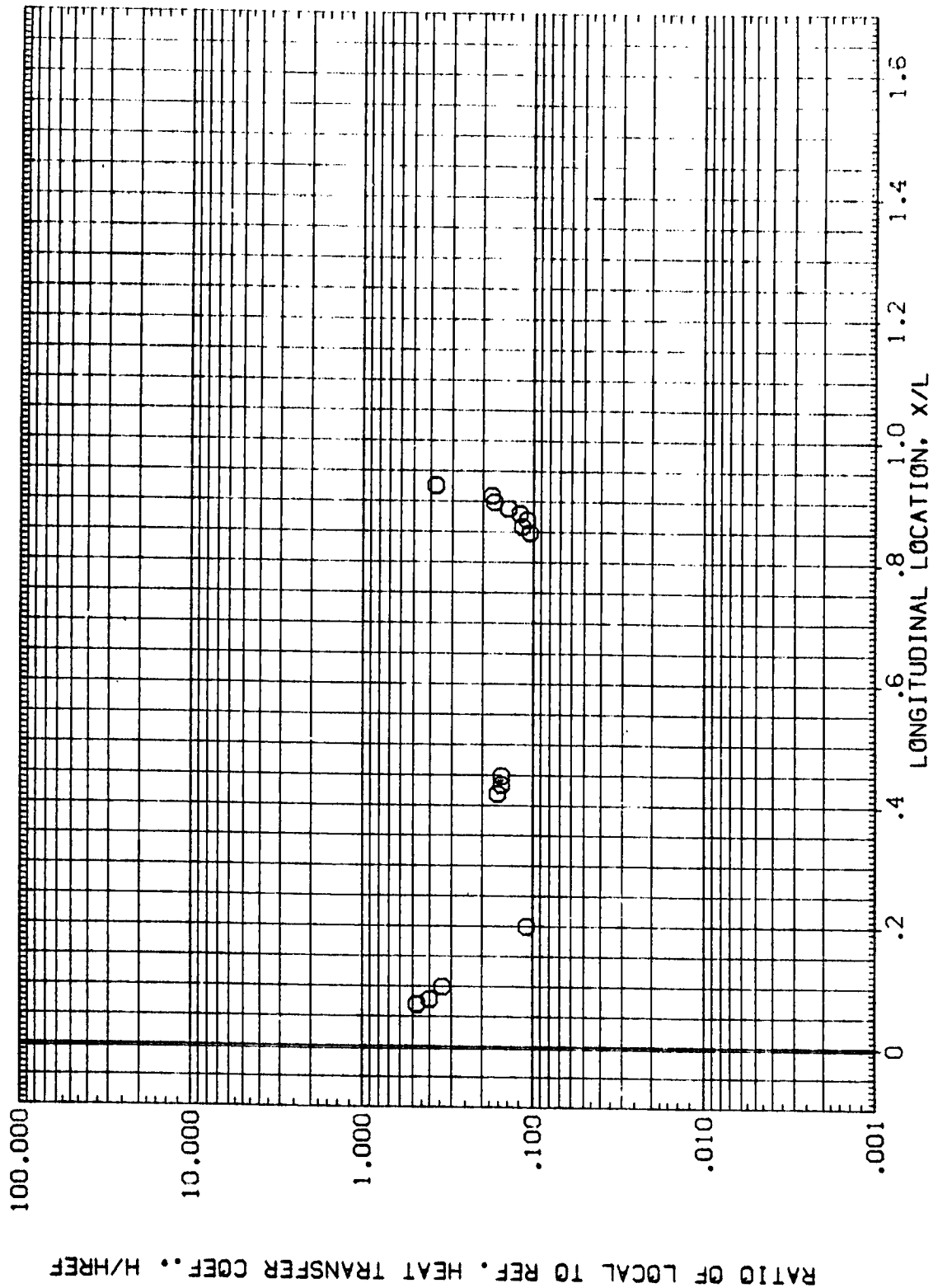


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HI = .900 PHI = 157.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB03)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      -5.000      .000      5.000  
 (RNB18)      DATA NOT AVAILABLE

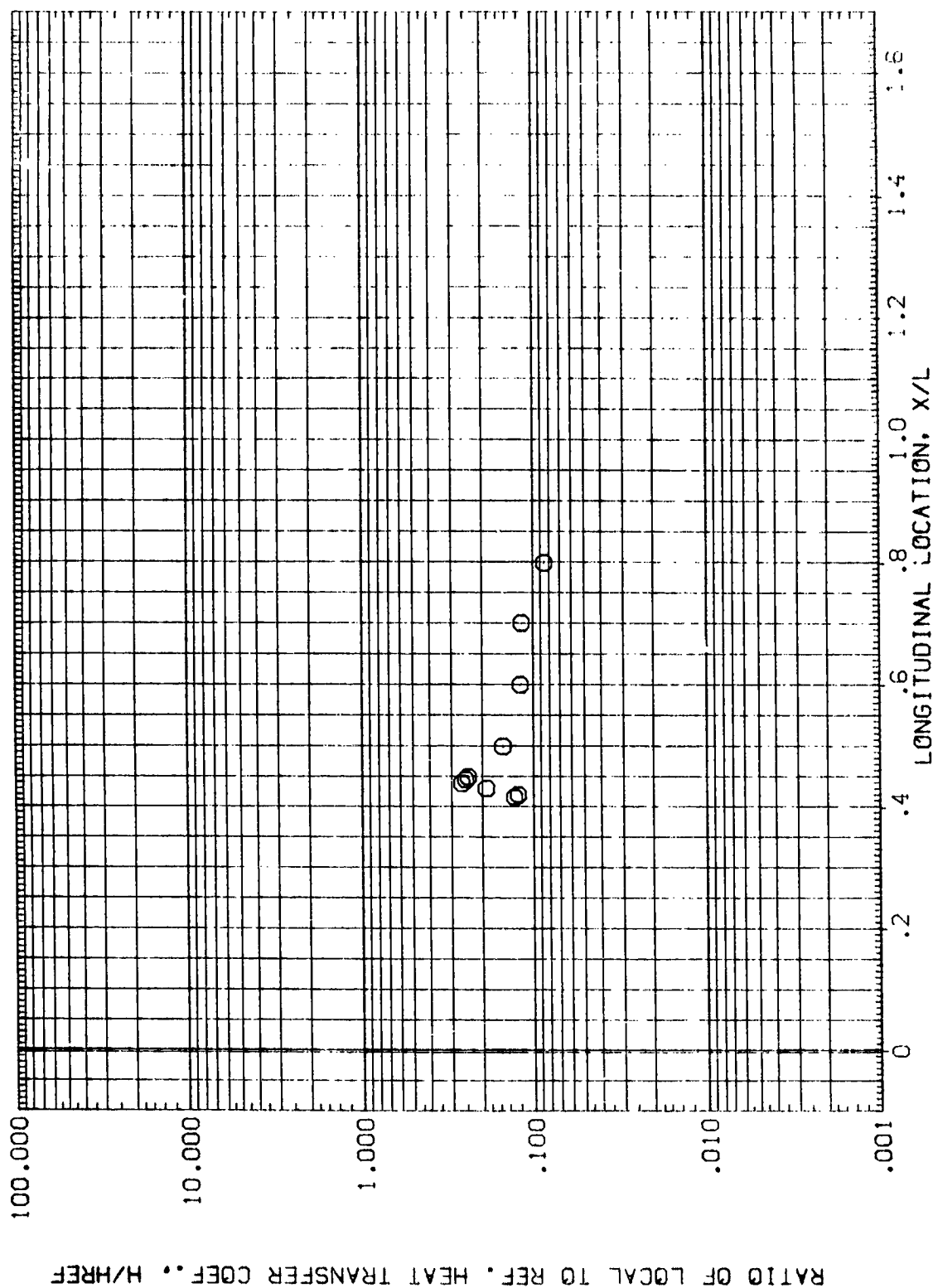


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.120

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFC3)    ARC3.5-211(IH48)OTS/NIPPLE/P.TRIPO(S) EXT TANK    -5.000    .000    5.000  
 (RNBFB18)    DATA NOT AVAILABLE    -5.000    .000    5.000

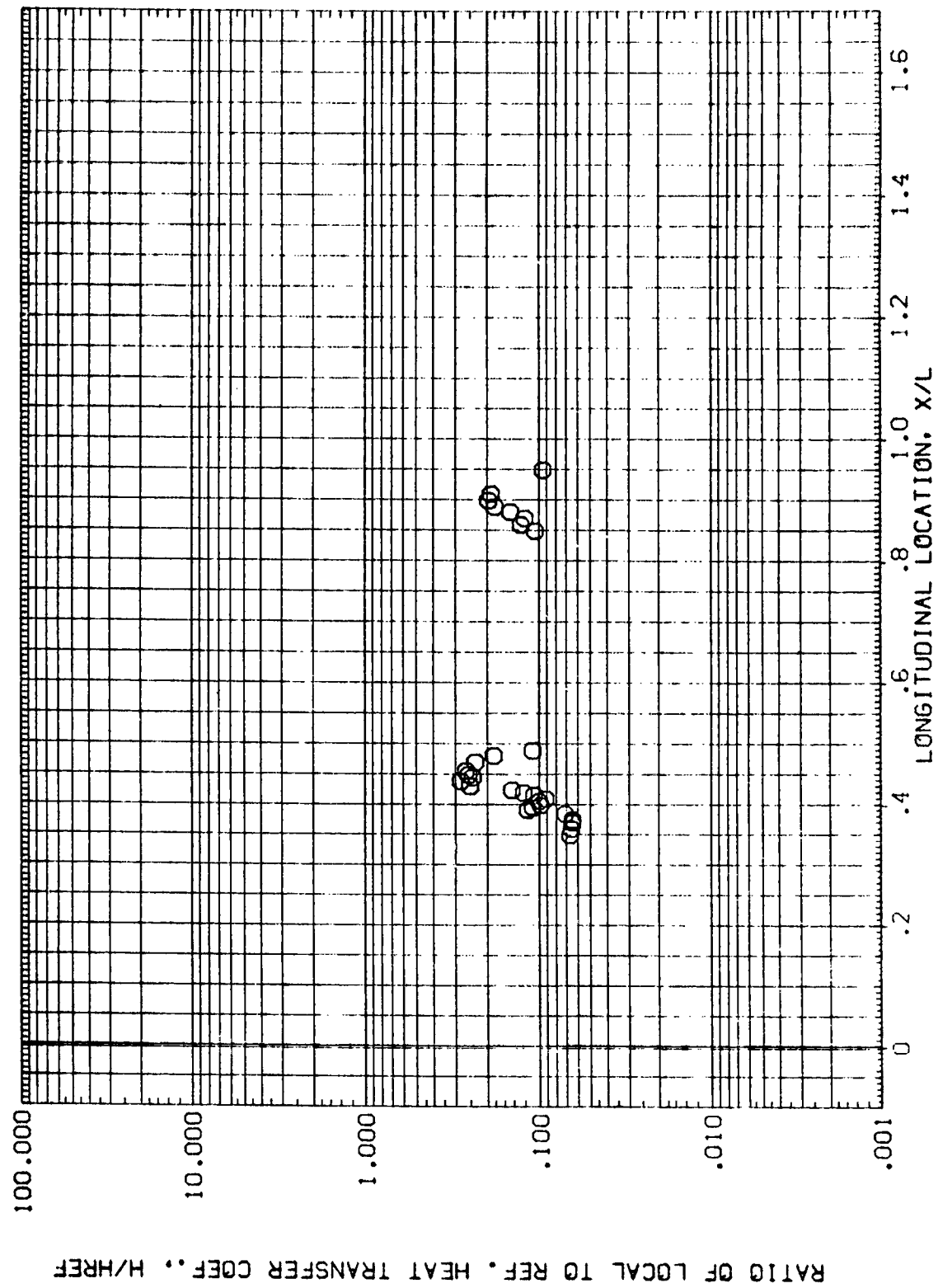


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    HAW/HI = .900    PHI = 168.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFO3)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    -5.000    .000    5.000  
 (RNBFI8)    ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK    -5.000    .000    5.000

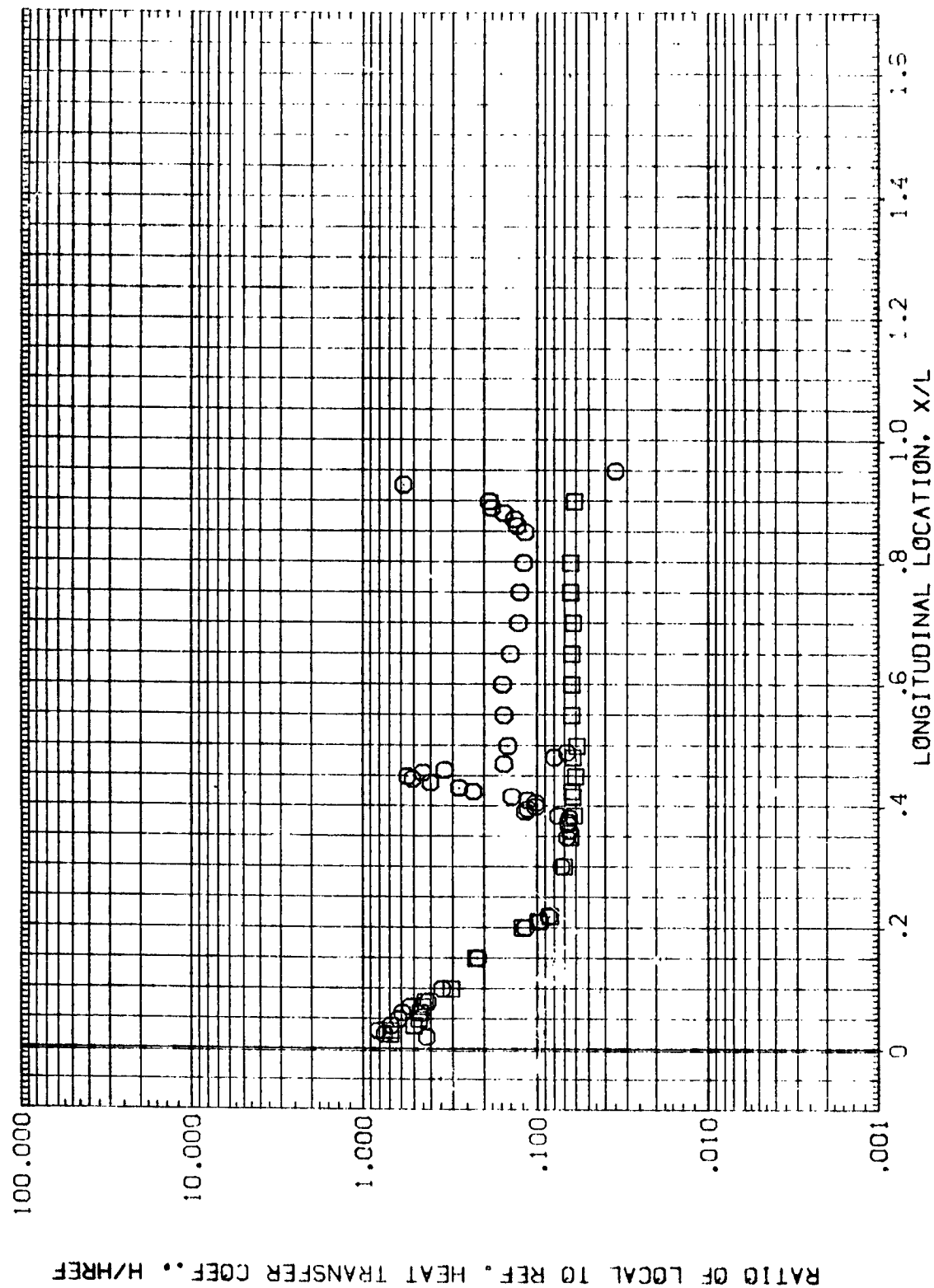


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFC3)      ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      -5.000      .000      5.000  
 (RNBFI8)      ARC3.5-211(1H48)ET /NIPPLE/CLEAN EXT TANK      -5.000      .000      5.000

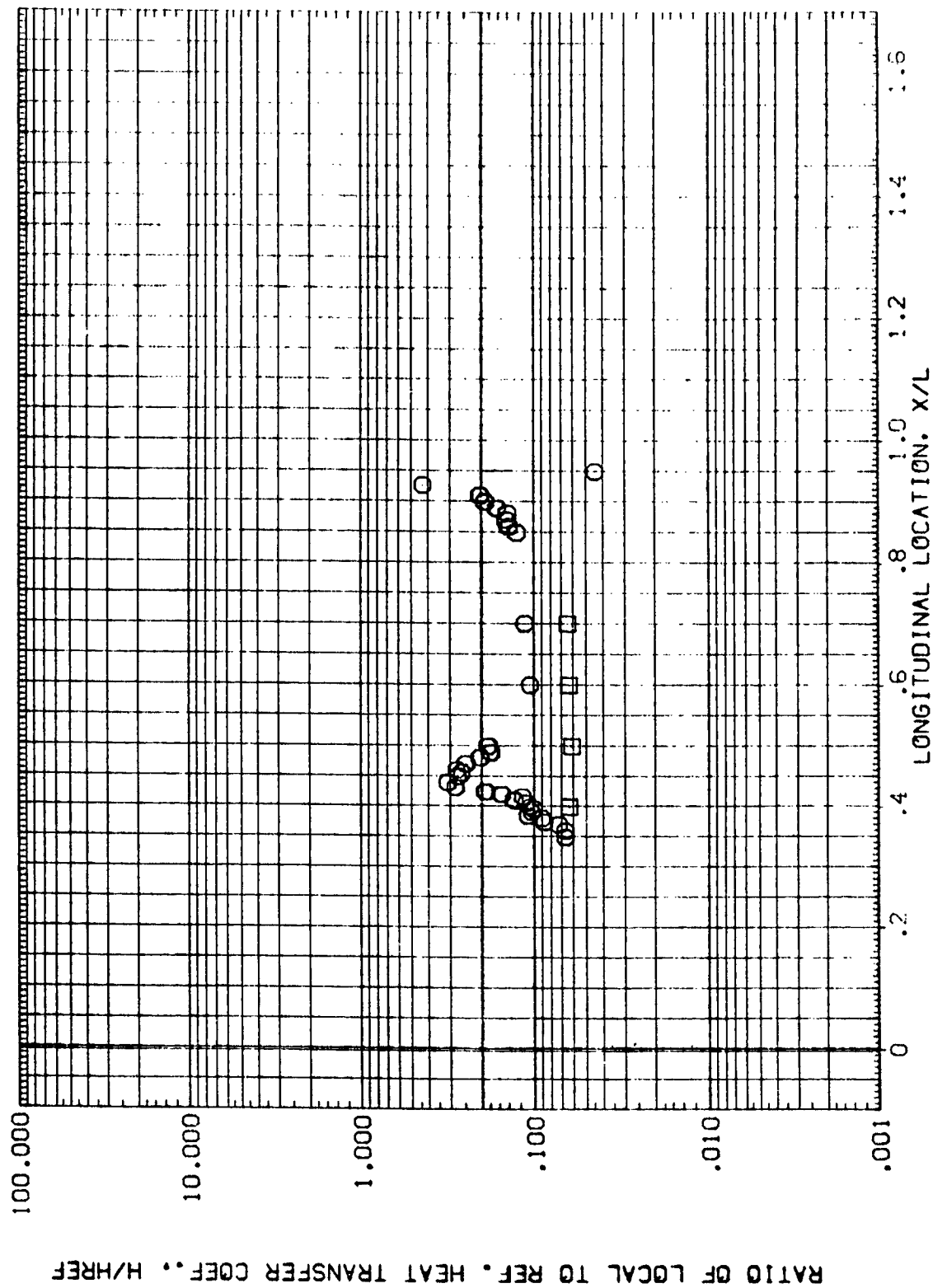


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P4I = 191.250

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFC3)    ARC3 S-211 (IH48JOTS/NIPPLE/P/TRIP(O+S) EXT TANK    -5.000    .000    5.000  
 (RNB18)    DATA NOT AVAILABLE

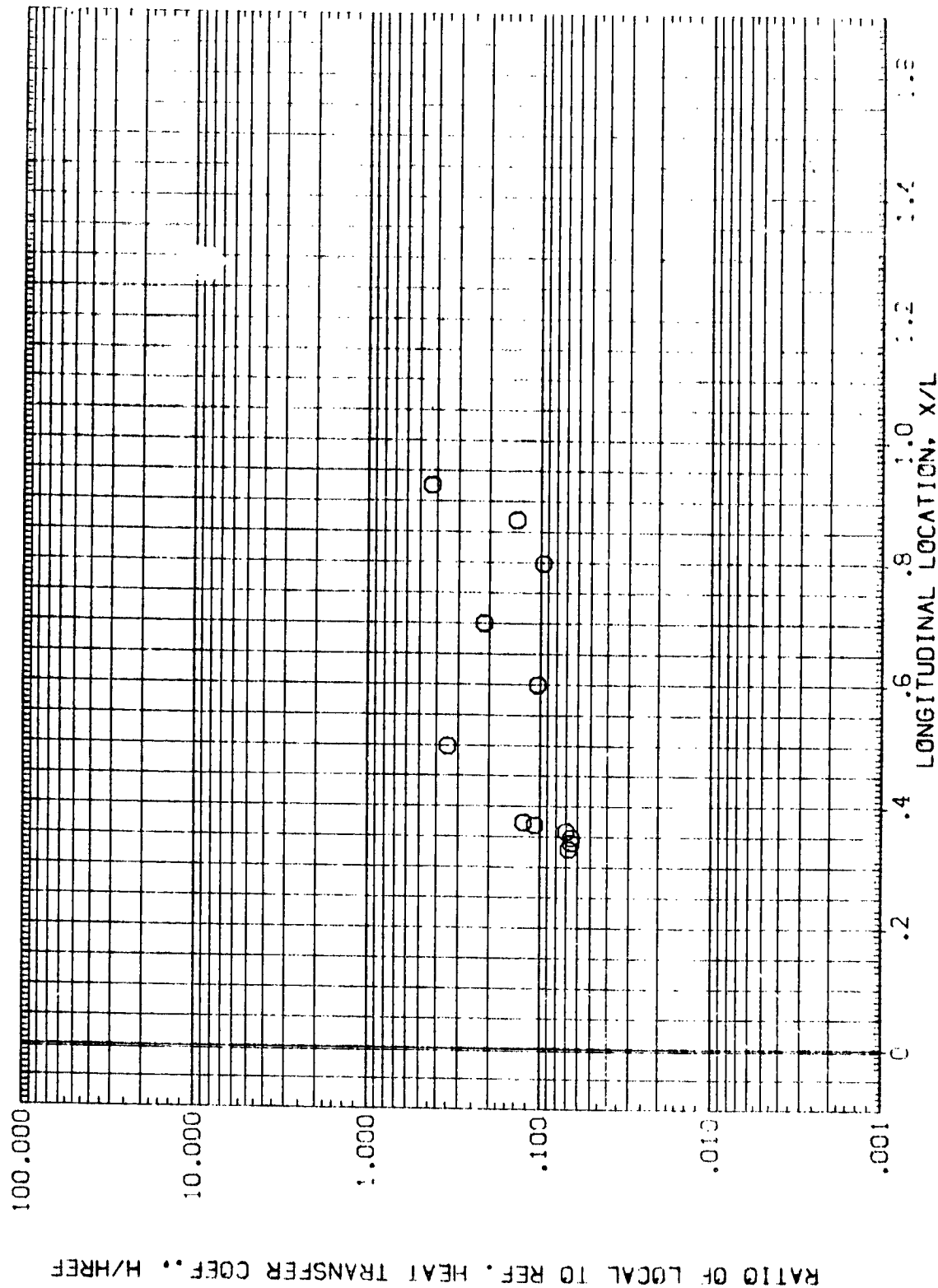


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 197.000



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RUBF03)    ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    -5.000    .000    5.000  
 (RUBF18)    DATA NOT AVAILABLE    -5.000    .000    5.000

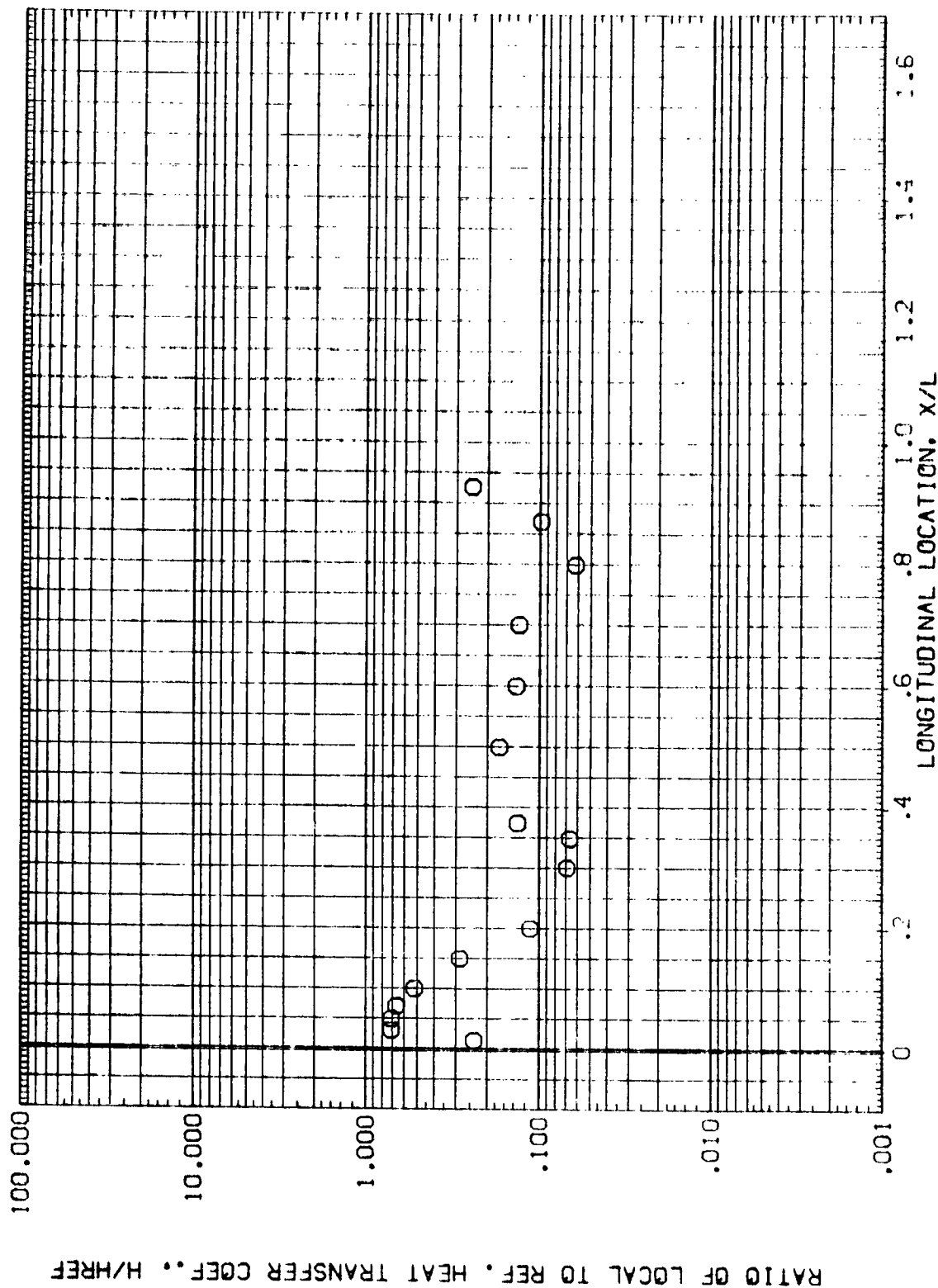


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 209.800

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R18F03) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (R18F18) ARC3.5-211(IH48)ET /NIPPLE/CLEAN EXT TANK

ALPHA BETA RV/L  
 -5.000 .000 5.000  
 -5.000 .000 5.000

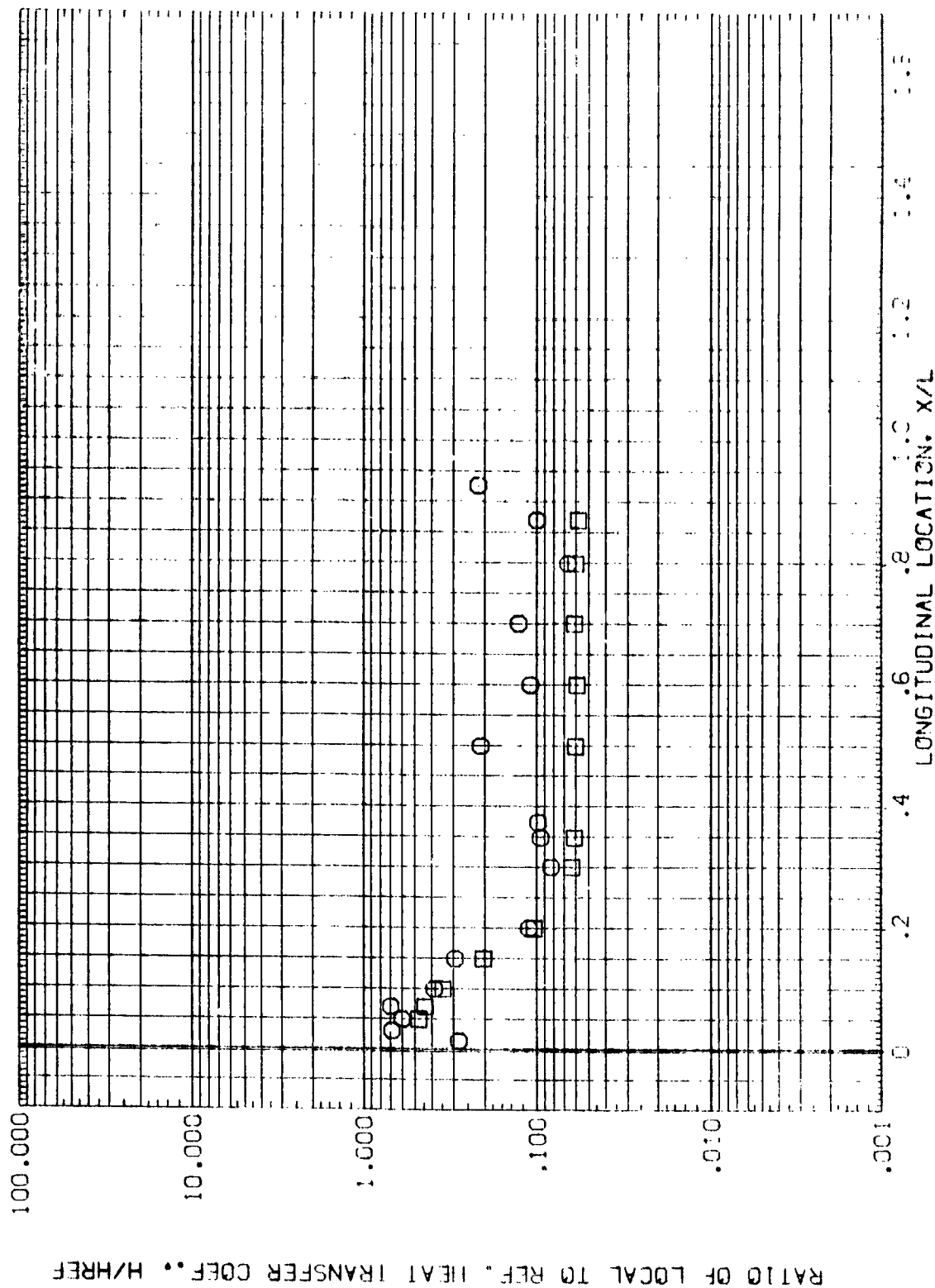


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFC4)  
(RNBFC21)  
(RNBFC27)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK  
ARC3.5-211(IH48)ET /OGIVE /TRIP EXT TANK

ALPHA BETA RV/L  
5.000 .000 5.000  
5.000 .000 5.000  
5.000 .000 5.000

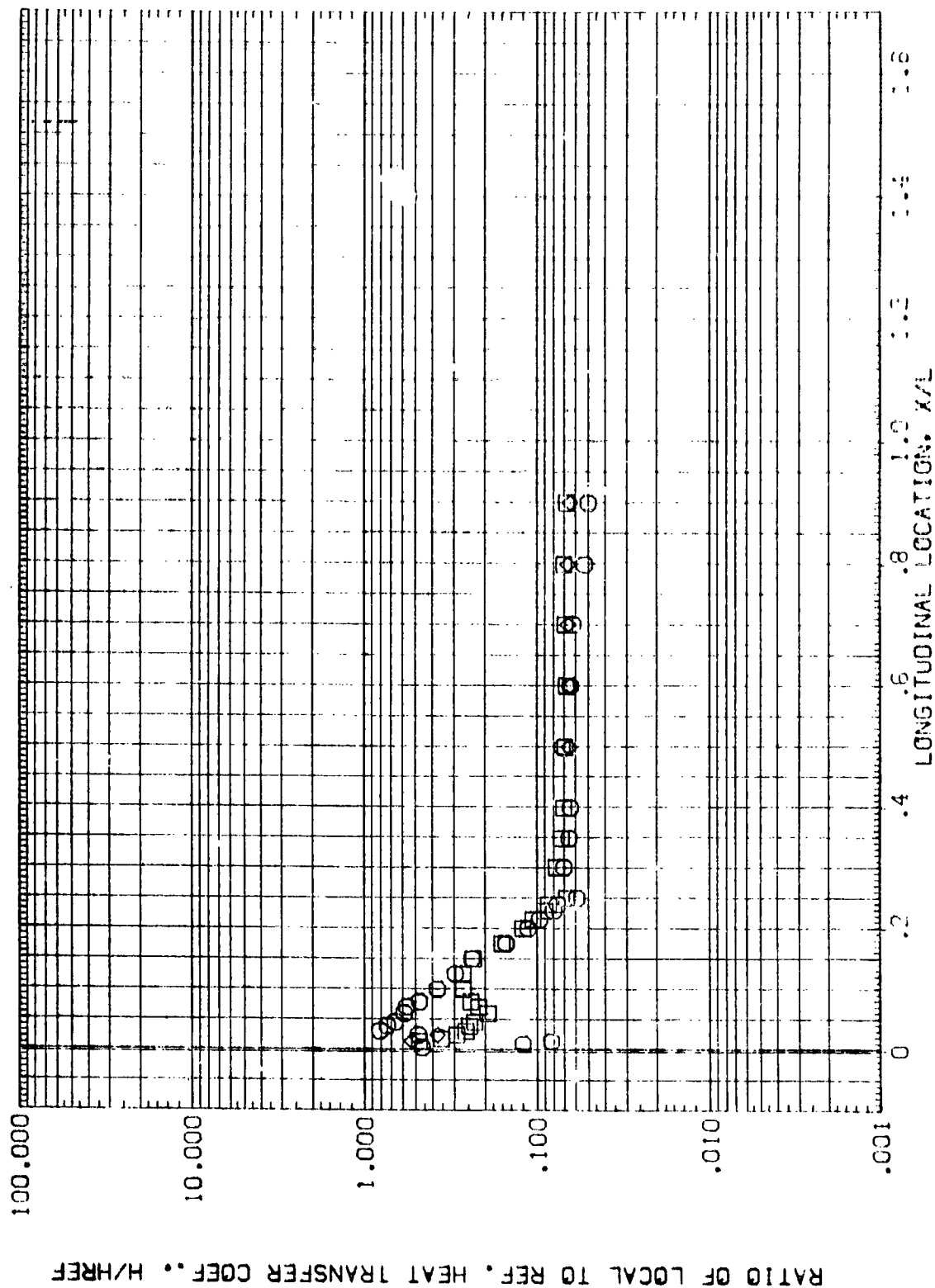


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RN/L  
 (R18FC4) ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK 5.000 .000 5.000  
 (R18F21) DATA NOT AVAILABLE 5.000 .000 5.000  
 (R18F27) DATA NOT AVAILABLE

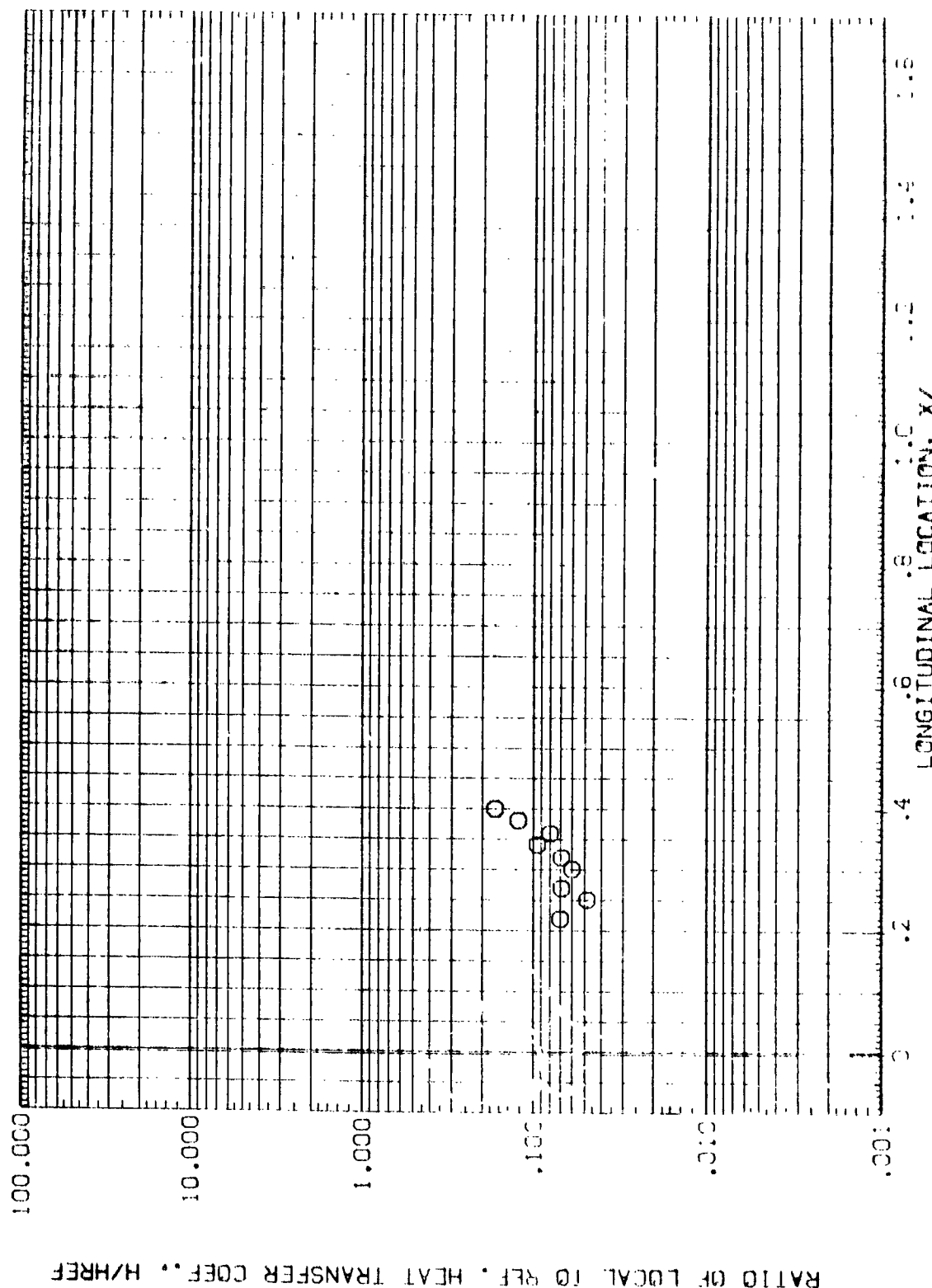


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL  
(RUBF01)  
(RUBF02)  
(RUBF27)

CONFIGURATION DESCRIPTION  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
ARC3.5-211(IH48)JET /OGIVE /CLEAN /TRIP EXT TANK  
ARC3.5-211(IH48)JET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA  
5.000  
5.000  
5.000

BETA  
.000  
.000  
.000

RV/L  
5.000  
5.000  
5.000

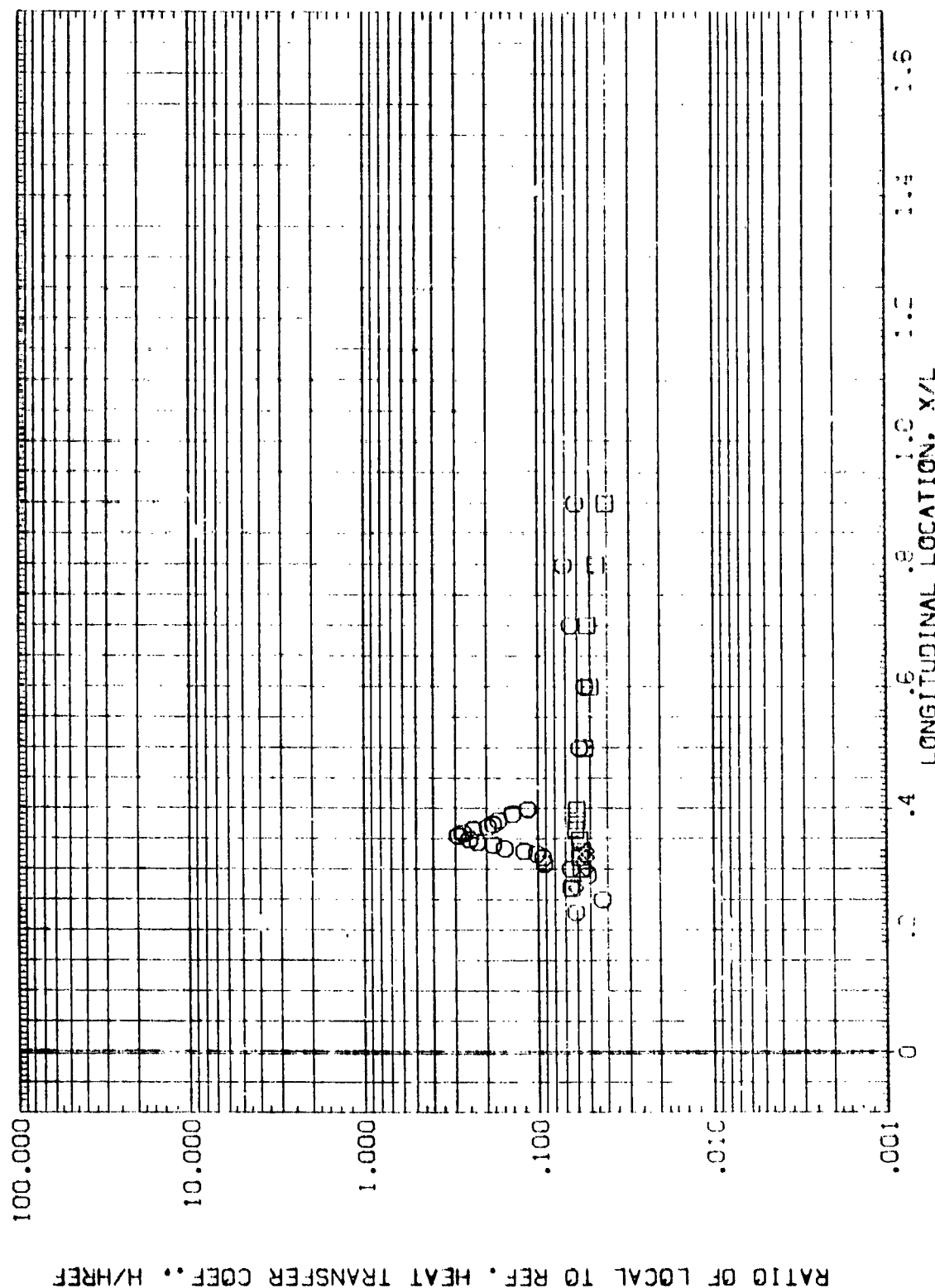


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO4) ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBZ21) DATA NOT AVAILABLE  
 (RNBZ27) DATA NOT AVAILABLE

ALPHA BETA RNL  
 5.000 .000 5.000  
 5.000 .000 5.000  
 5.000 .000 5.000

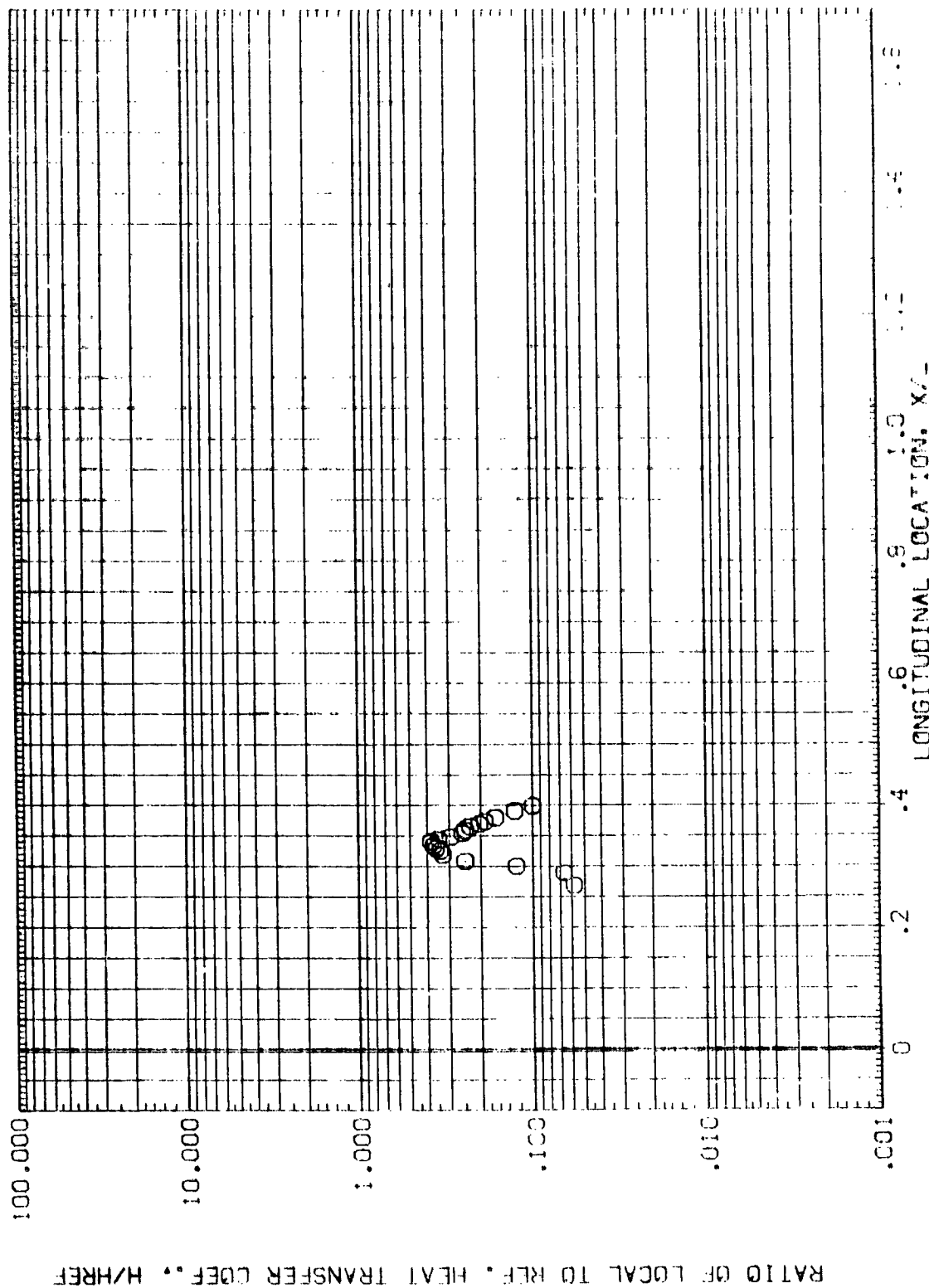


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.000 HAW/HT = .900 PHI = 75.000

DATA SET SYM33 CONFIGURATION DESCRIPTION ALPHA BETA RVZ  
 (RHSF04) ARC3.5-211C(H48)ETS/NIPPLE/P/TRIP(0-5) EXT TANK 5.000 5.000  
 (RHSF21) ARC3.5-211C(H48)ET /UGIVE /CLEAN EXT TANK 5.000 5.000  
 (RHSF27) ARC3.5-211C(H48)ET /OGIVE /TRIP EXT TANK 5.000 5.000

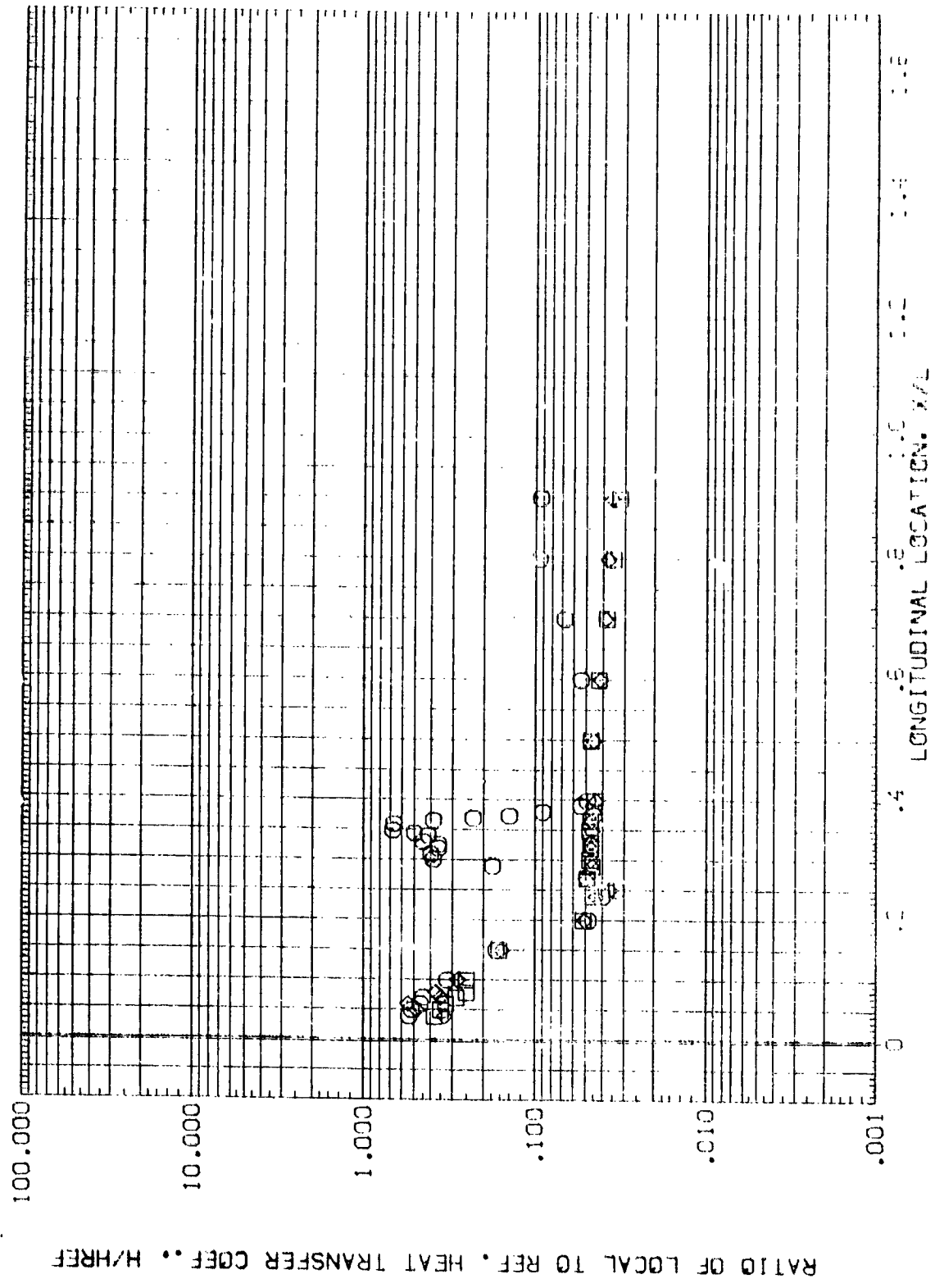


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.200 HAWK/HT = 2.000 T-1 = 23.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RN/L

(RNBFO4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK 5.000 5.000 5.000

(RNBFO2) ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK 5.000 5.000 5.000

(RNBFO2) ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK 5.000 5.000 5.000

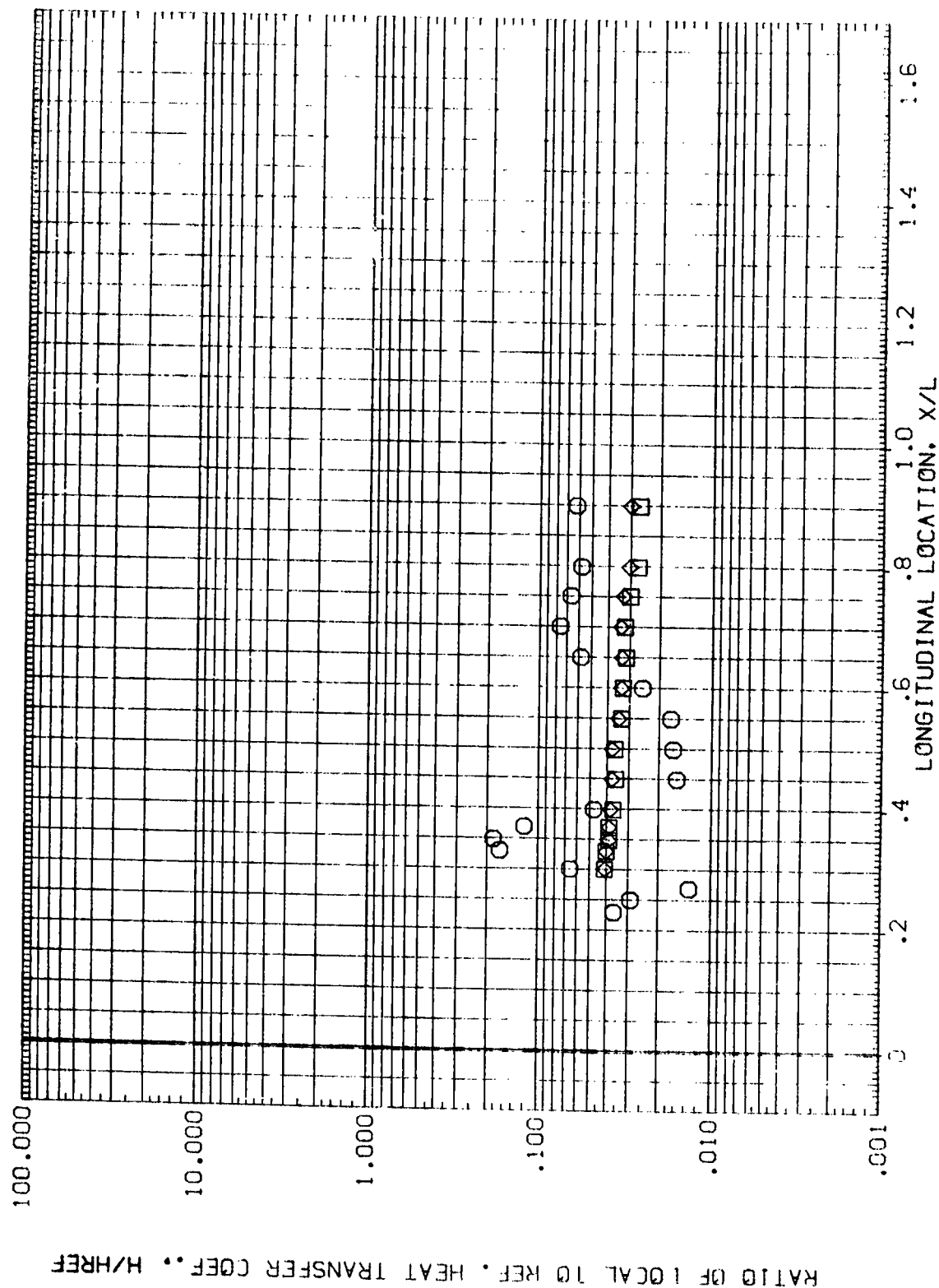


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 112.500



DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(RNBFO4)    ARC3.5-211(148)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    5.000    .000    5.000

(RNB21)    DATA NOT AVAILABLE    5.000    .000    5.000

(RNB27)    DATA NOT AVAILABLE

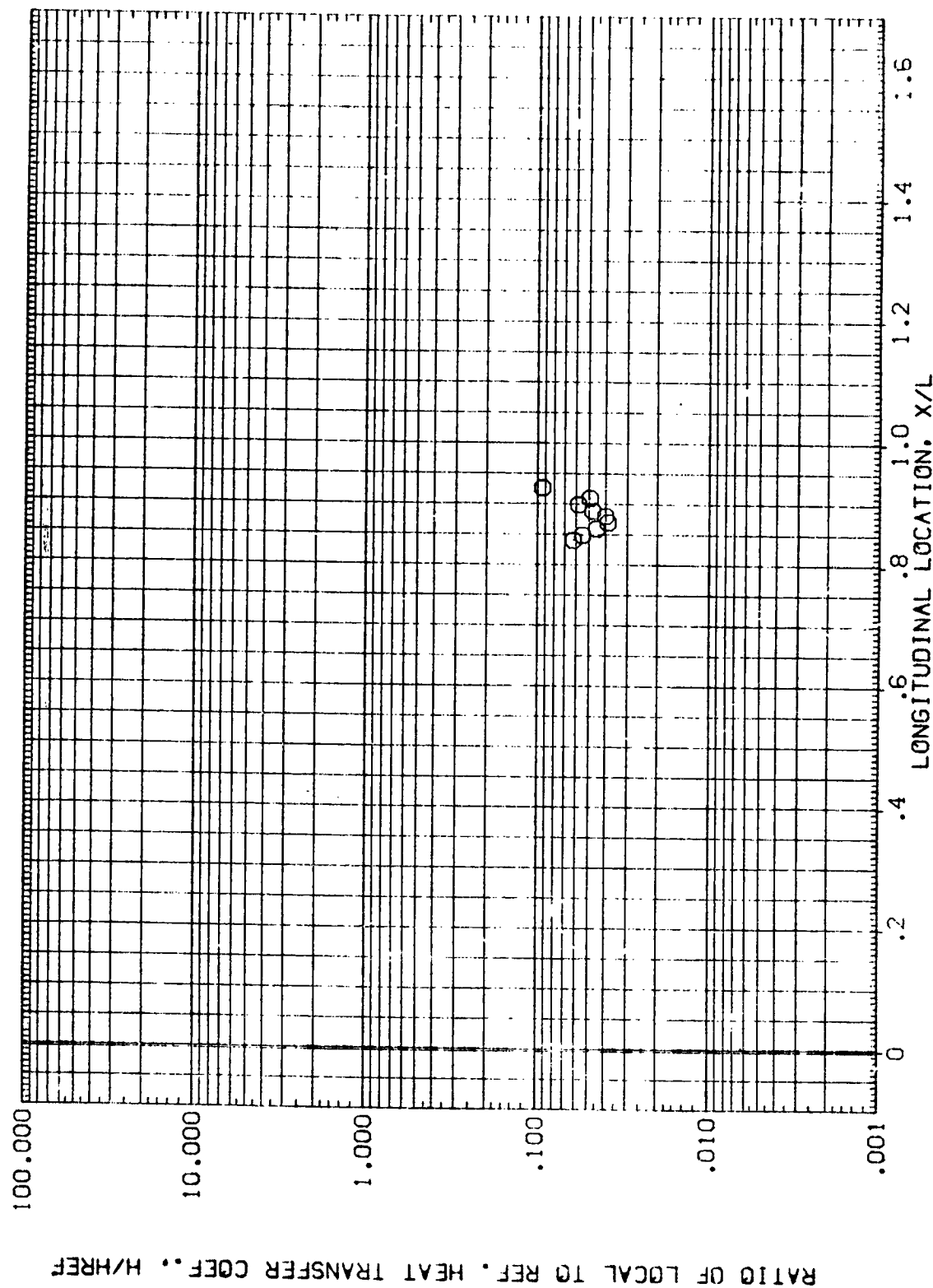


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO4)      ARC3 5-211C(H48)OTS/NIPPLE/P/(R)2(O+S) EXT TANK      5.000      .000      5.000  
 (RNB21)      DATA NOT AVAILABLE      5.000      .000      5.000  
 (RNB27)      DATA NOT AVAILABLE

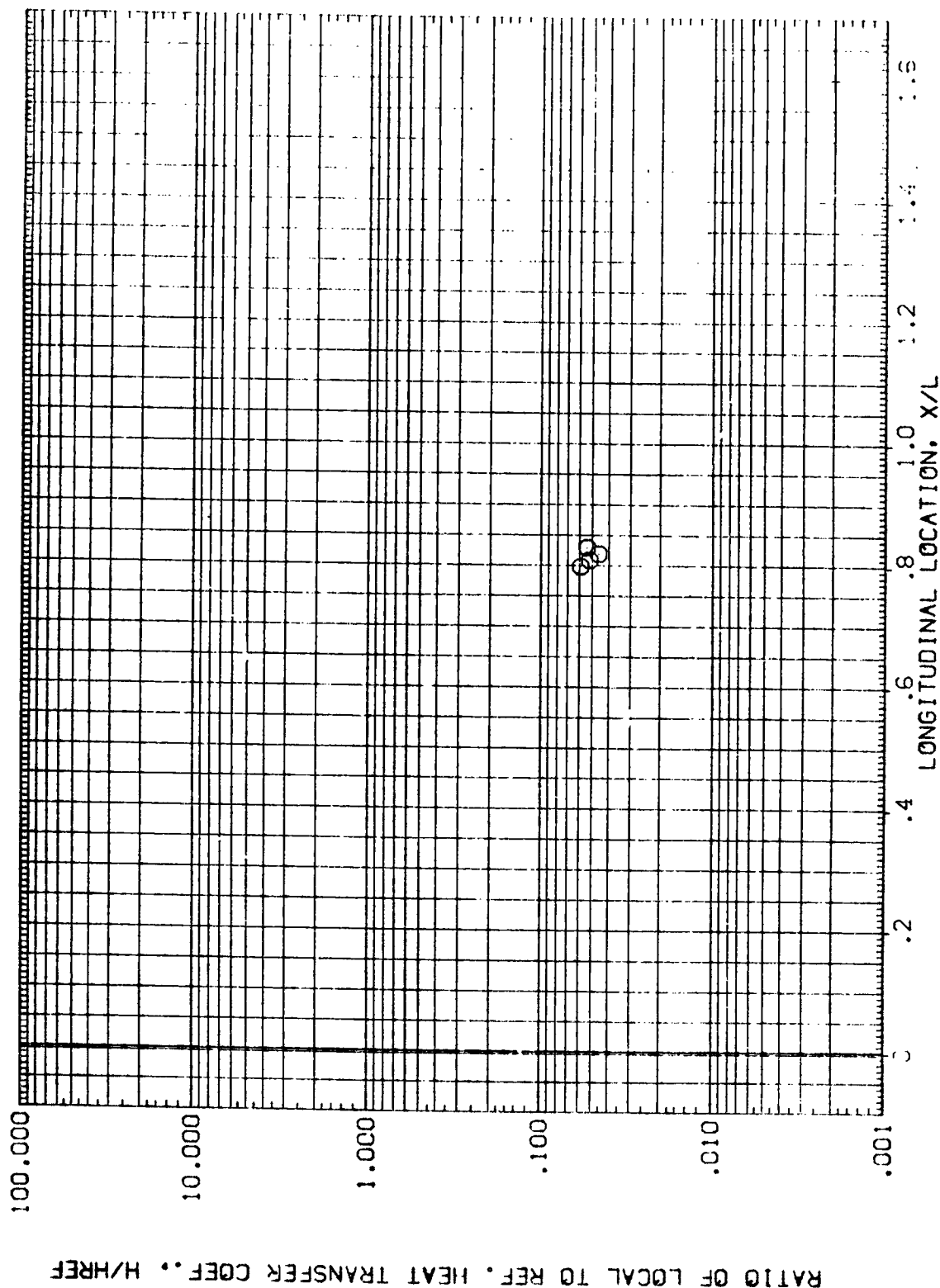
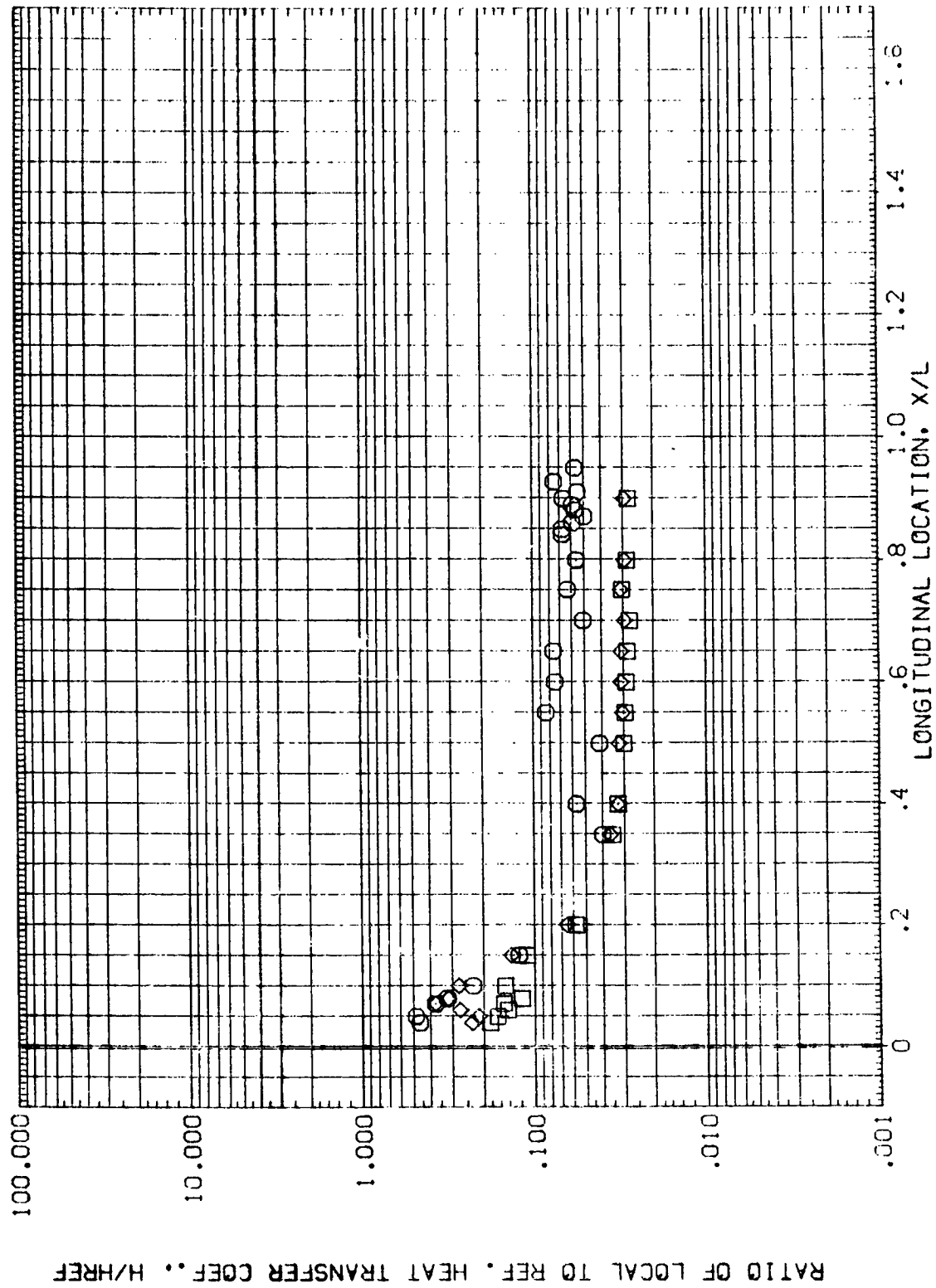


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB04)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	5.000	.000	5.000
(RNB21)	ARC3.5-211(IH48)ET /GGIVE /CLEAN	5.000	.000	5.000
(RNB27)	ARC3.5-211(IH48)ET /GGIVE /CLEAN /TRIP	5.000	.000	5.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK  
 (RNB21) DATA NOT AVAILABLE  
 (RNB27) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 5.000 .000 5.000  
 5.000 .000 5.000

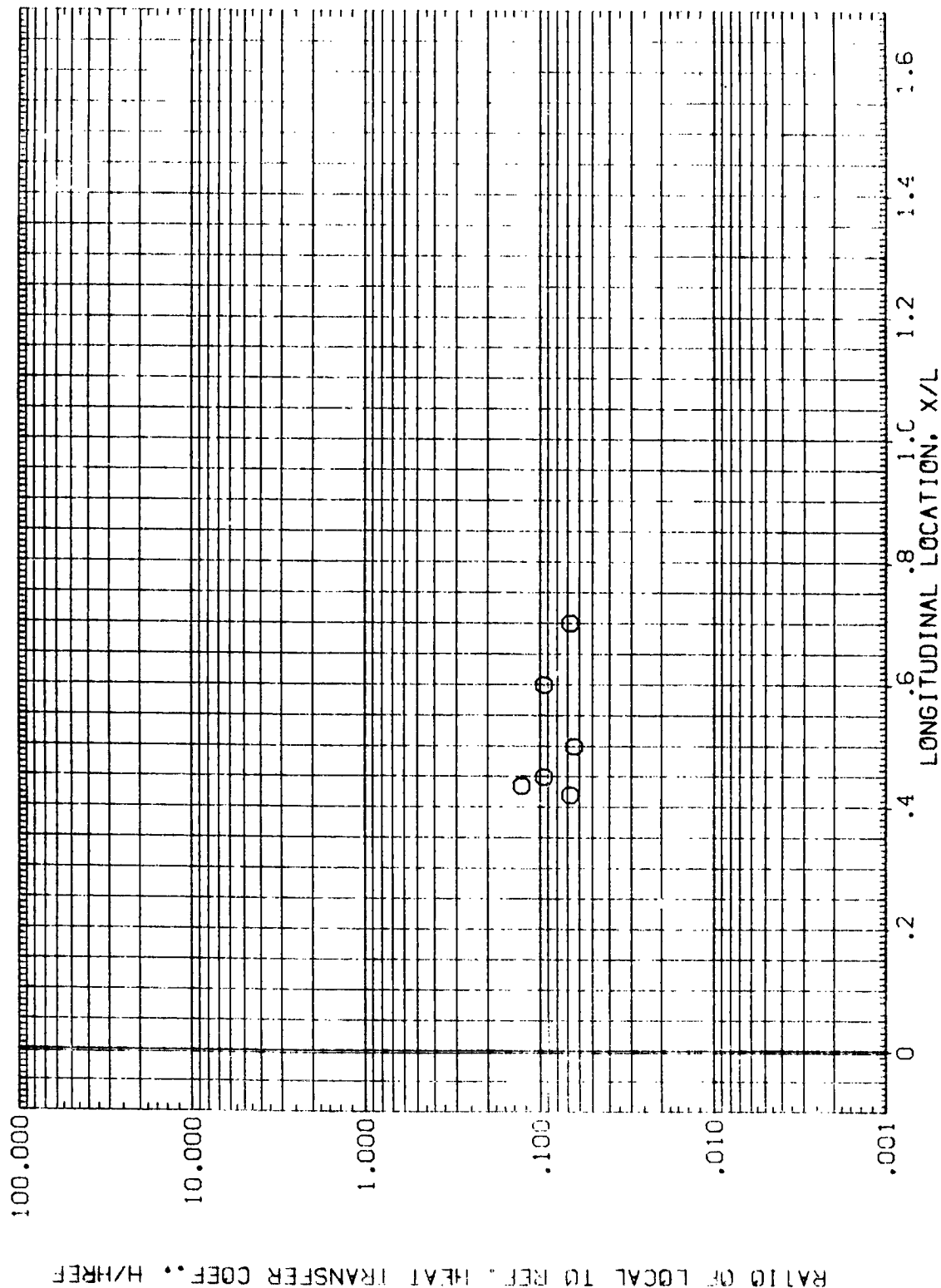


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFC4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFC21) ARC3.5-211(IH48)JET /OGIVE /CLEAN EXT TANK  
 (RNBFC27) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 5.000 .000 5.000  
 5.000 .000 5.000  
 5.000 .000 5.000

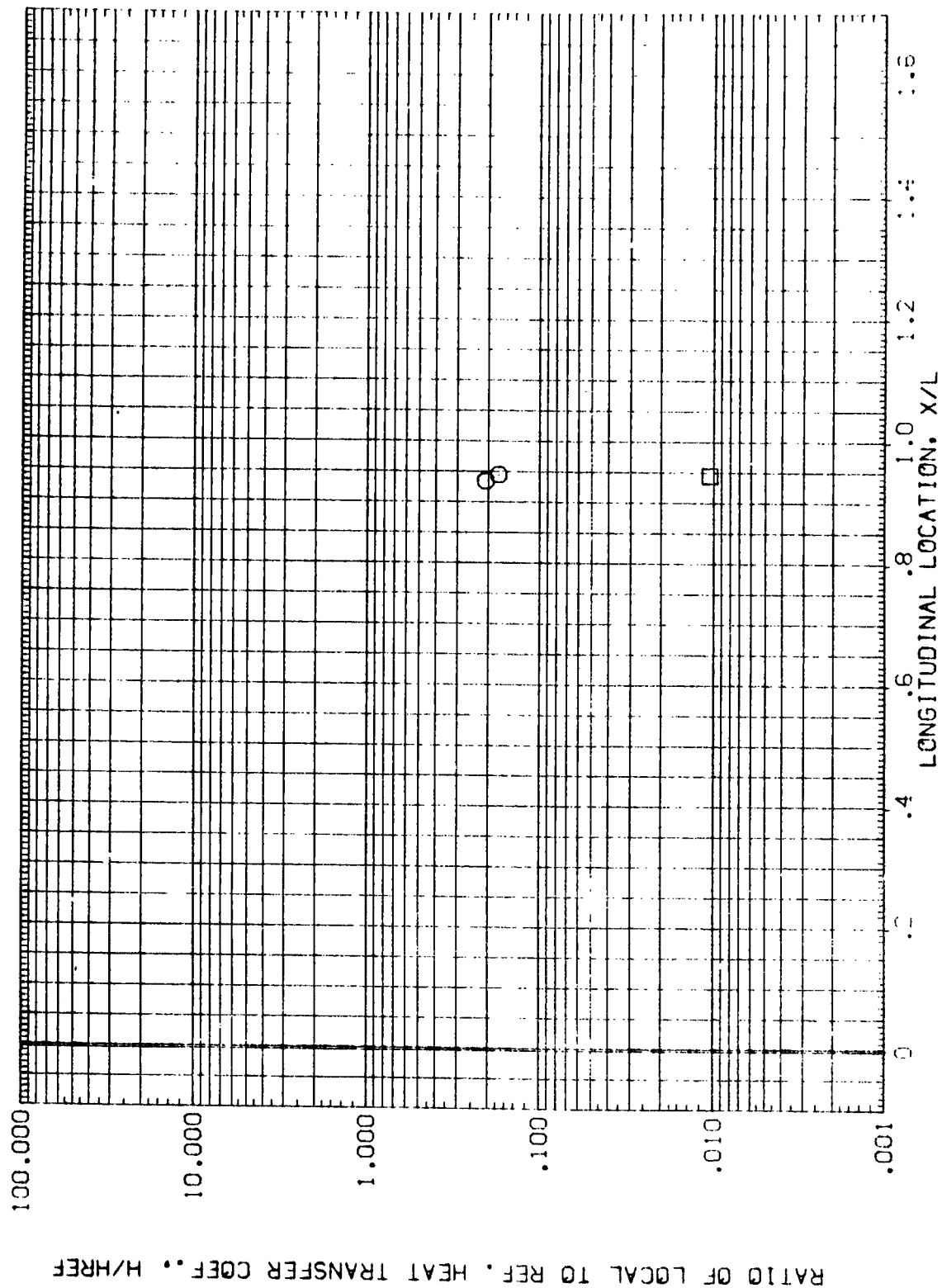


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P-HI = 154.980

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO4) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNB21) DATA NOT AVAILABLE  
 (RNB27) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 5.000 .000 5.000  
 5.000 .000 5.000  
 5.000 .000 5.000

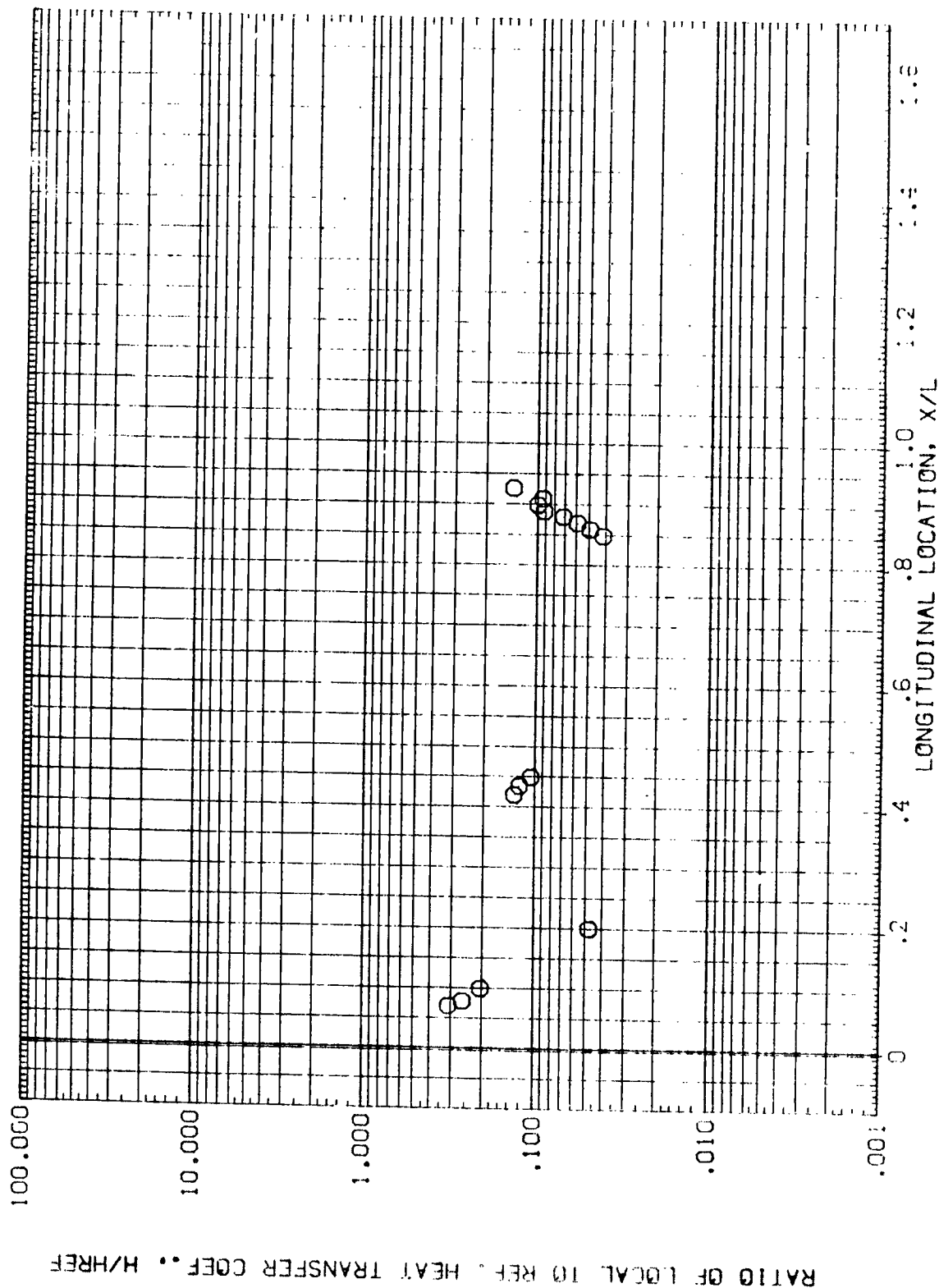


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 157.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RMBF04) ARC3-S-211(1H46)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RMBF21) DATA NOT AVAILABLE  
 (RMBF27) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 5.000 .000 5.000  
 5.000 .000 5.000  
 5.000 .000 5.000

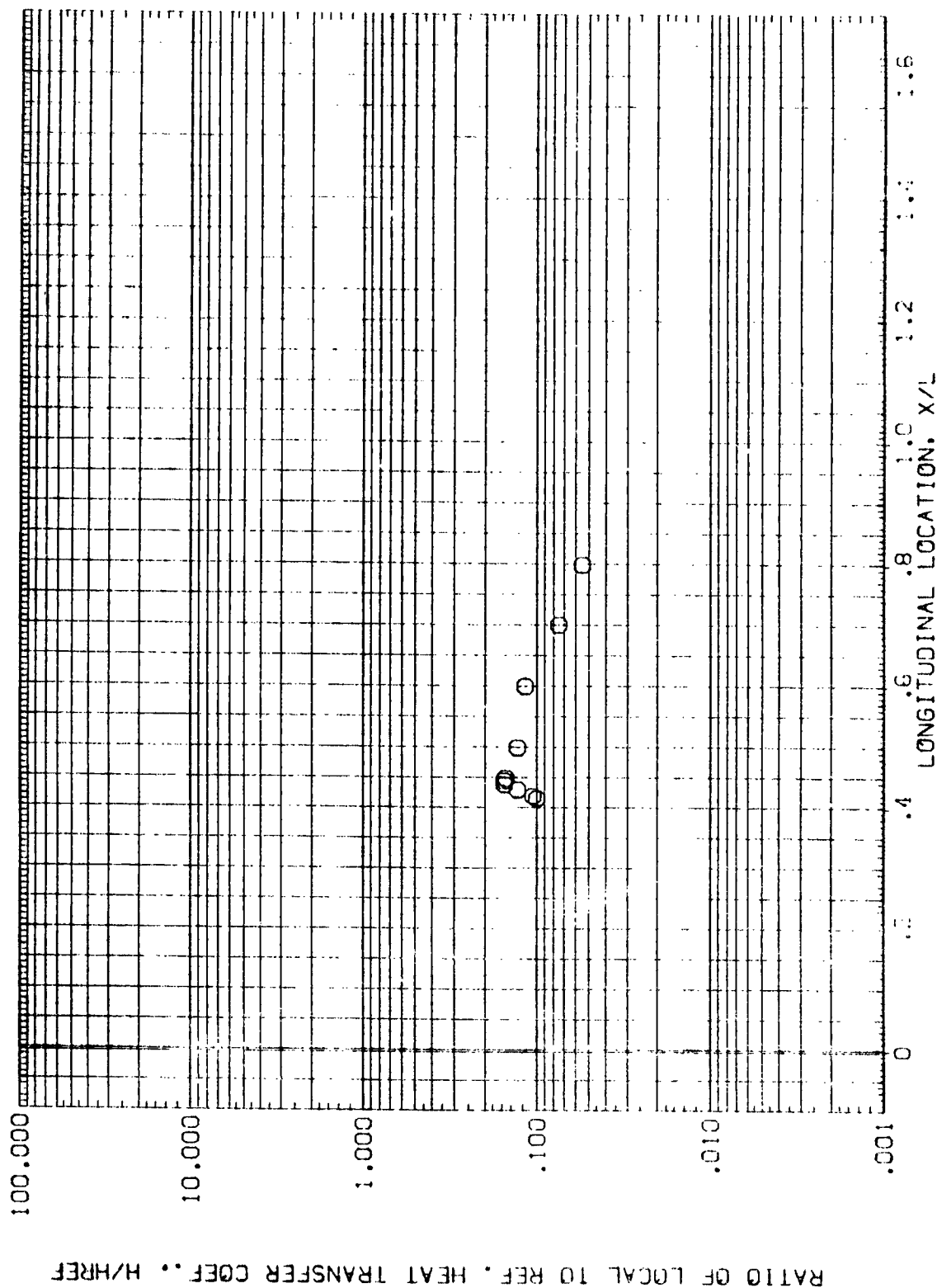


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 163.120

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNBFO4)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      5.000      .000      5.000  
 (RNB21)      DATA NOT AVAILABLE      5.000      .000      5.000  
 (RNB27)      DATA NOT AVAILABLE

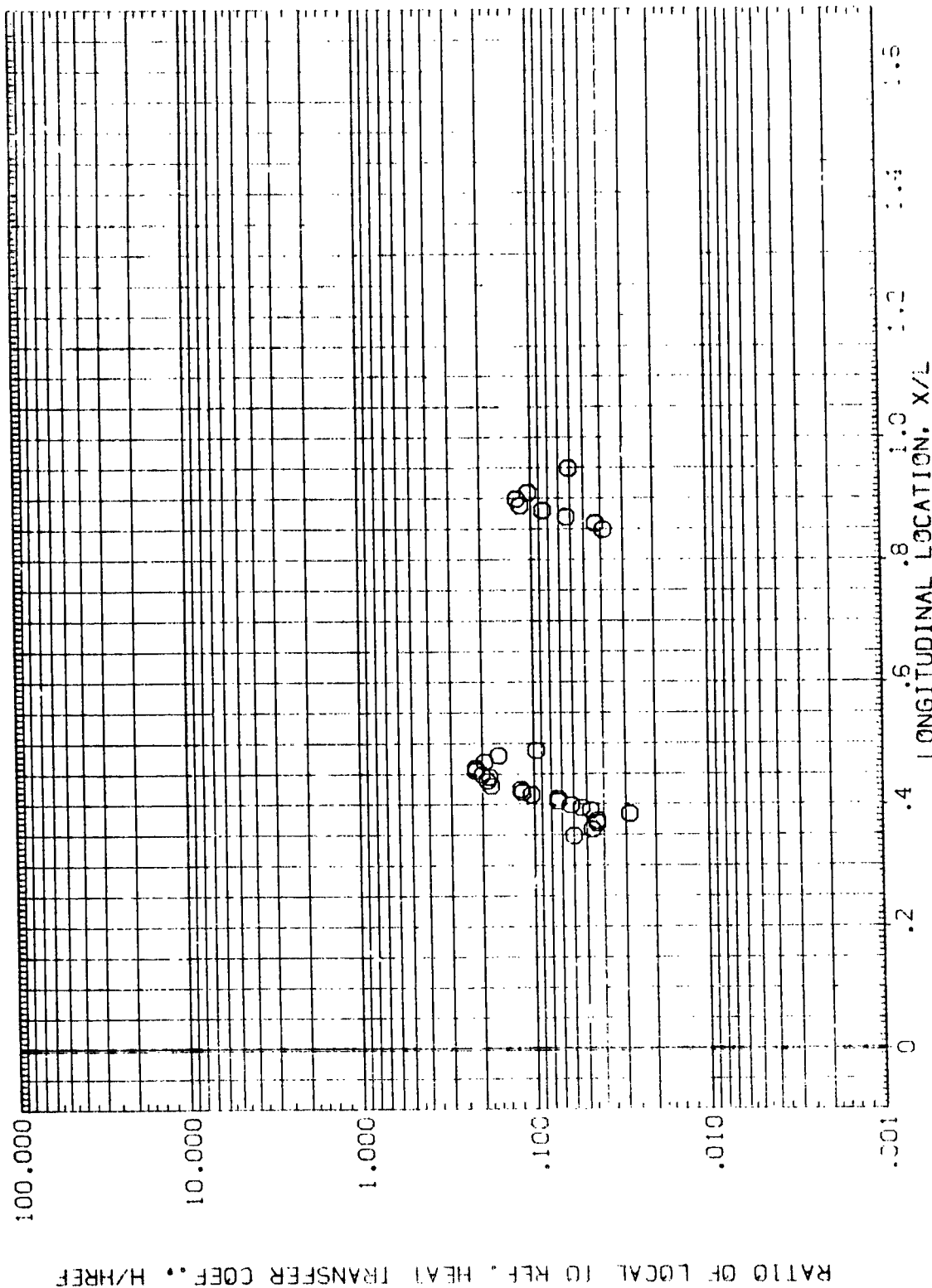


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 168.000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNBFO4)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK      5.000      .000      5.000

(RNB21)      ARC3.5-211(IH48)JET /OGIVE /CLEAN EXT TANK      5.000      .000      5.000

(RNB27)      DATA NOT AVAILABLE

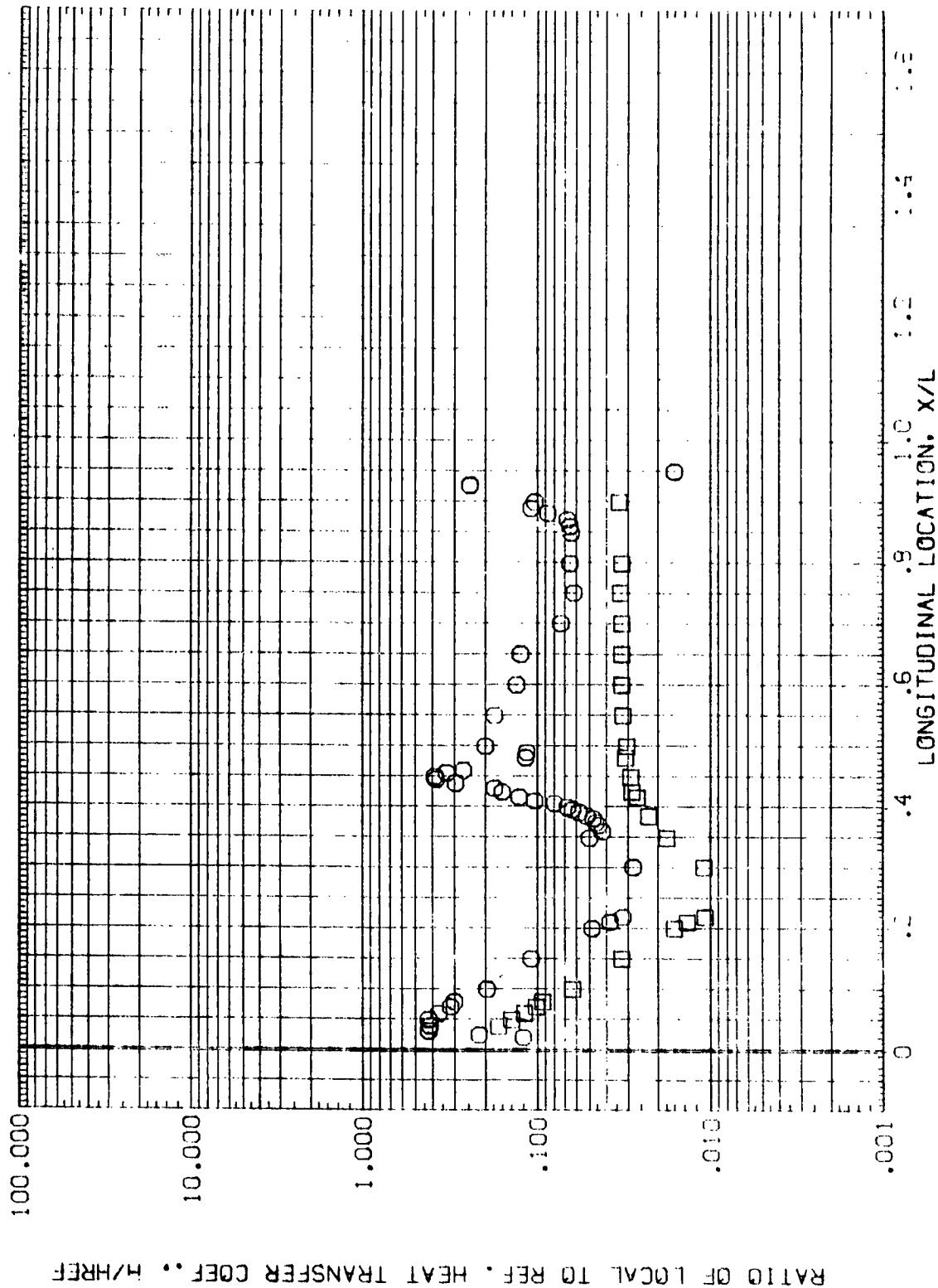


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB504) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNB521) ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK  
 (RNB527) DATA NOT AVAILABLE

ALPHA BETA R<sub>N/L</sub>  
 5.000 .000 5.000  
 5.000 .000 5.000

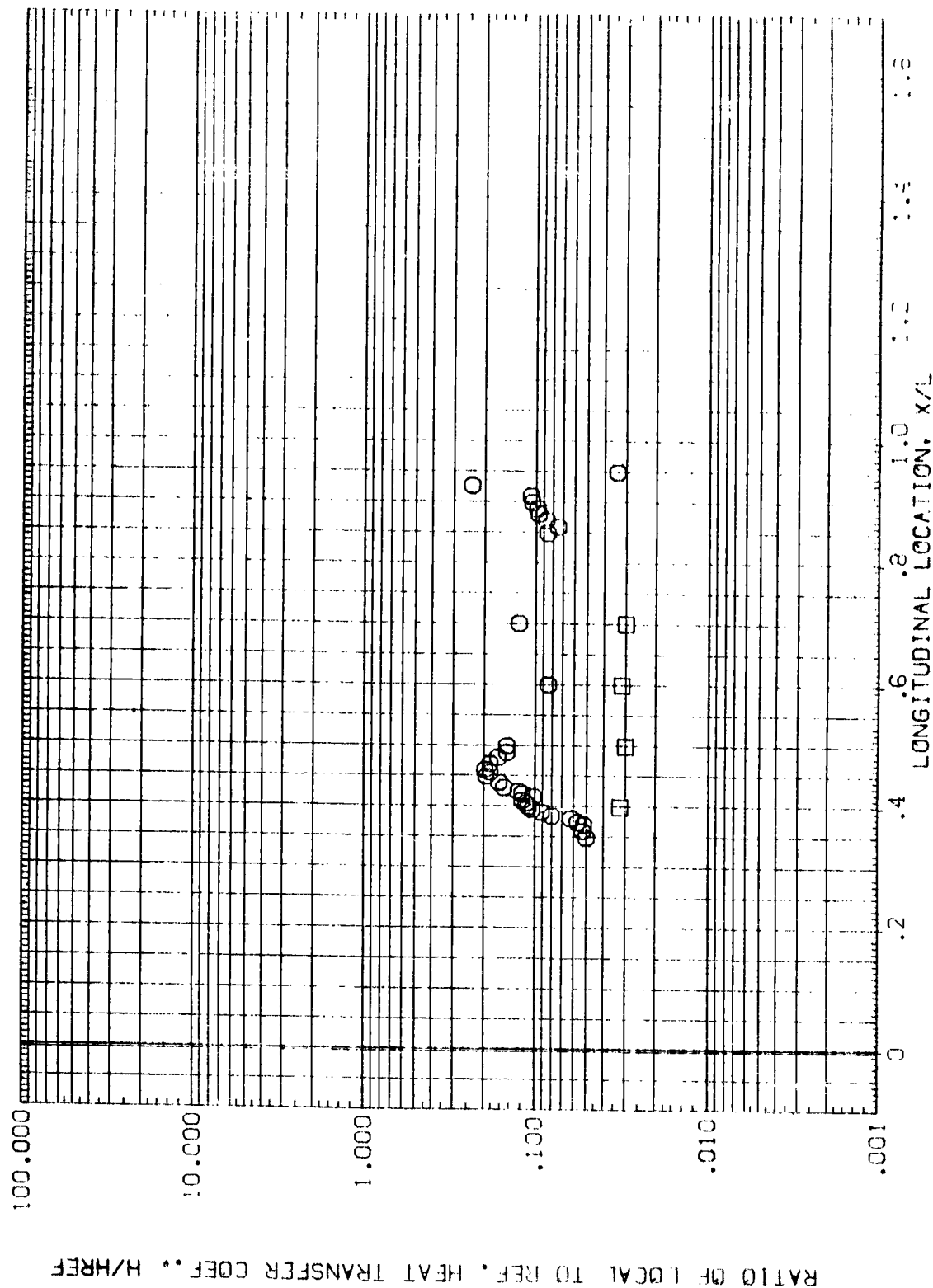


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFD4) ARC3-S-211(1H48)OTS/NIPPLE/P/TR(P(0+S) EXT TAN-  
 (RNBFD1) DATA NOT AVAILABLE  
 (RNBFD7) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 5.000 .000 5.000  
 5.000 .000 5.000

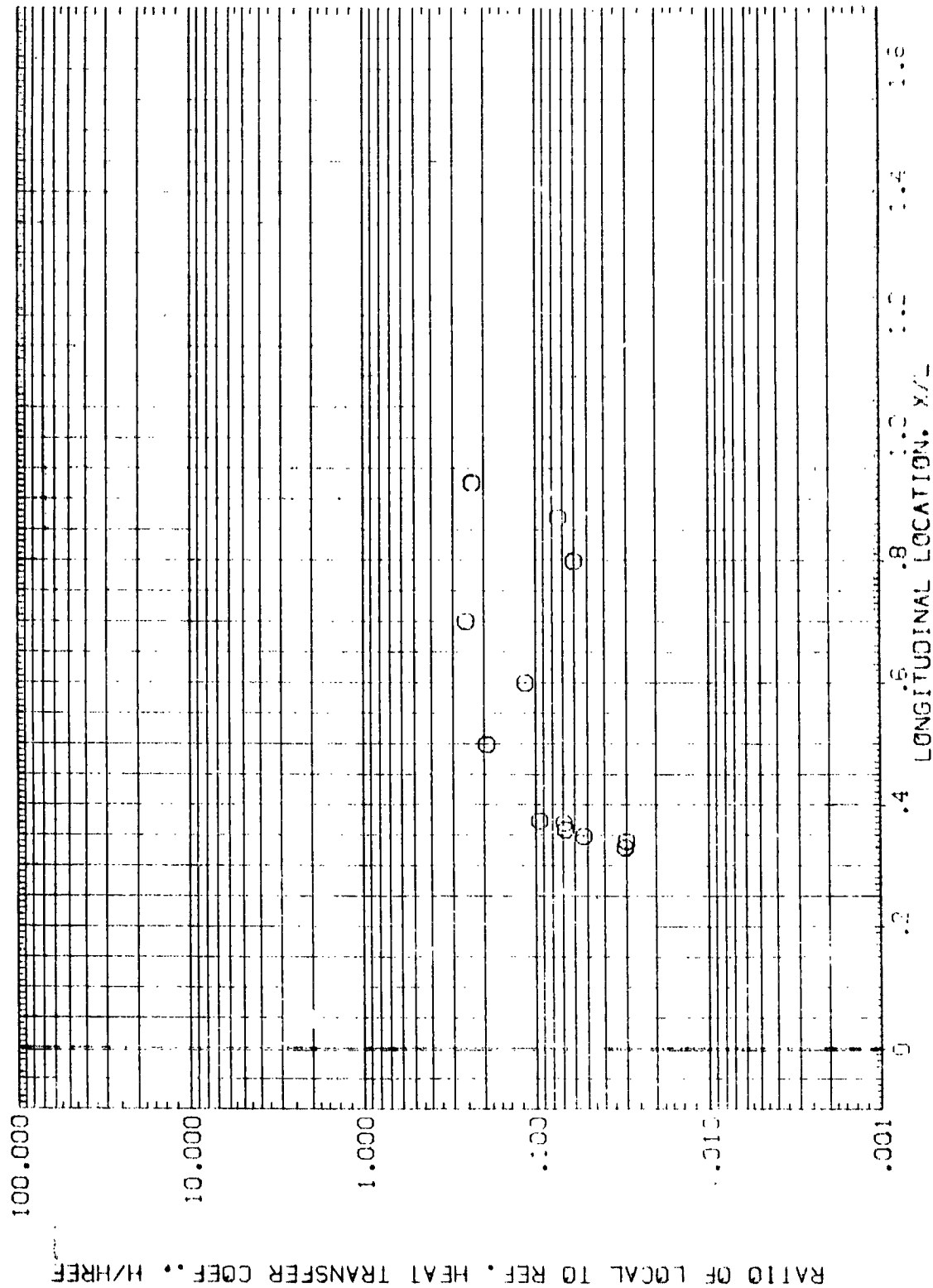


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PH = .97.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RAYL

(R3SF04)    ARC3-S-211C(H48)OTS/NIPPLE/P/TRIP(O-S) EXT TANK    5.000    .000    5.000

(R3BF21)    DATA NOT AVAILABLE    5.000    .000    5.000

(R3BF27)    DATA NOT AVAILABLE    5.000    .000    5.000

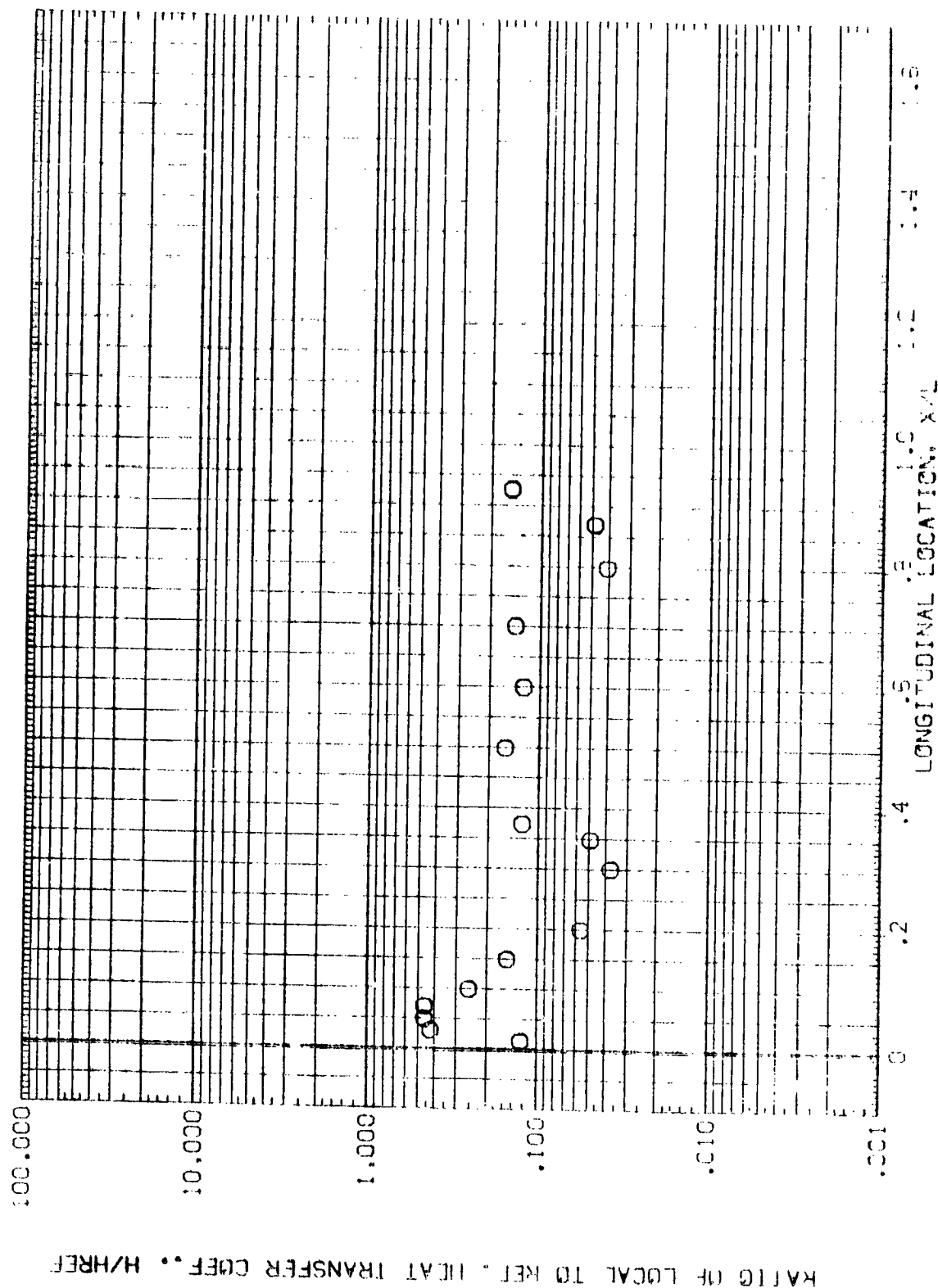


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300    HAW/HI = .500    PHI = 309.800

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNB04)  
(RNB21)  
(RNB27)

ARC3.5-211(1H48)OTS/NIPP.E/P/IRIP(0+S) EXT TANK  
ARC3.5-211(1H48)ET /GGIVE /CLEAN EXT TANK  
DATA NOT AVAILABLE

ALPHA BETA RV/L  
5.000 .000 5.000  
5.000 .000 5.000  
5.000 .000 5.000

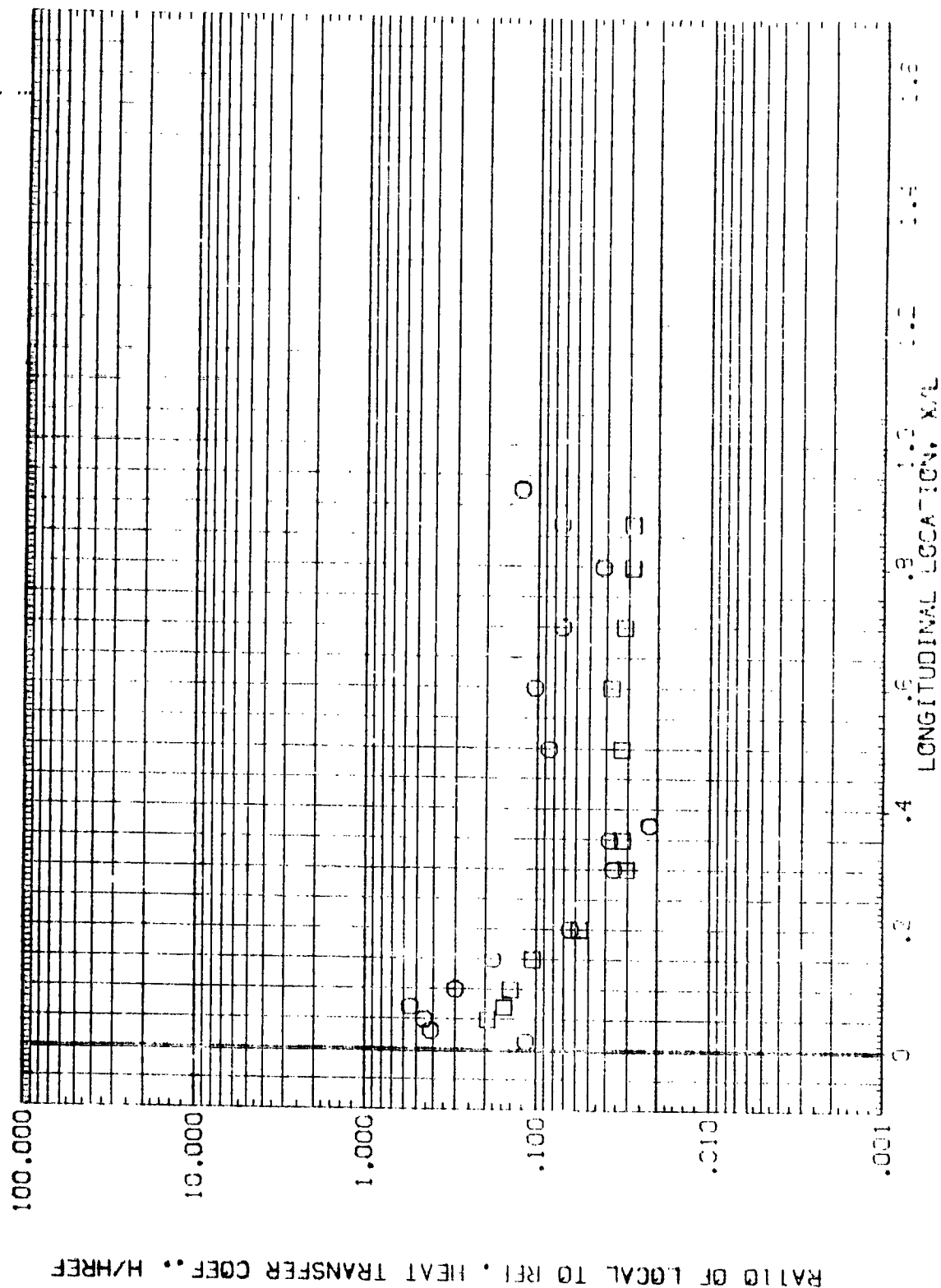


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB05)      ARC3.5-211(I48)OTS/NIPPLE/P/TRIP(0+S)      EXT TANK      10.000      .000      5.000

(RNB22)      ARC3.5-211(I48)ET /OGIVE /CLEAN      EXT TANK      10.000      .000      5.000

(RNB26)      ARC3.5-211(I48)ET /OGIVE /CLEAN /TRIP      EXT TANK      10.000      .000      5.000

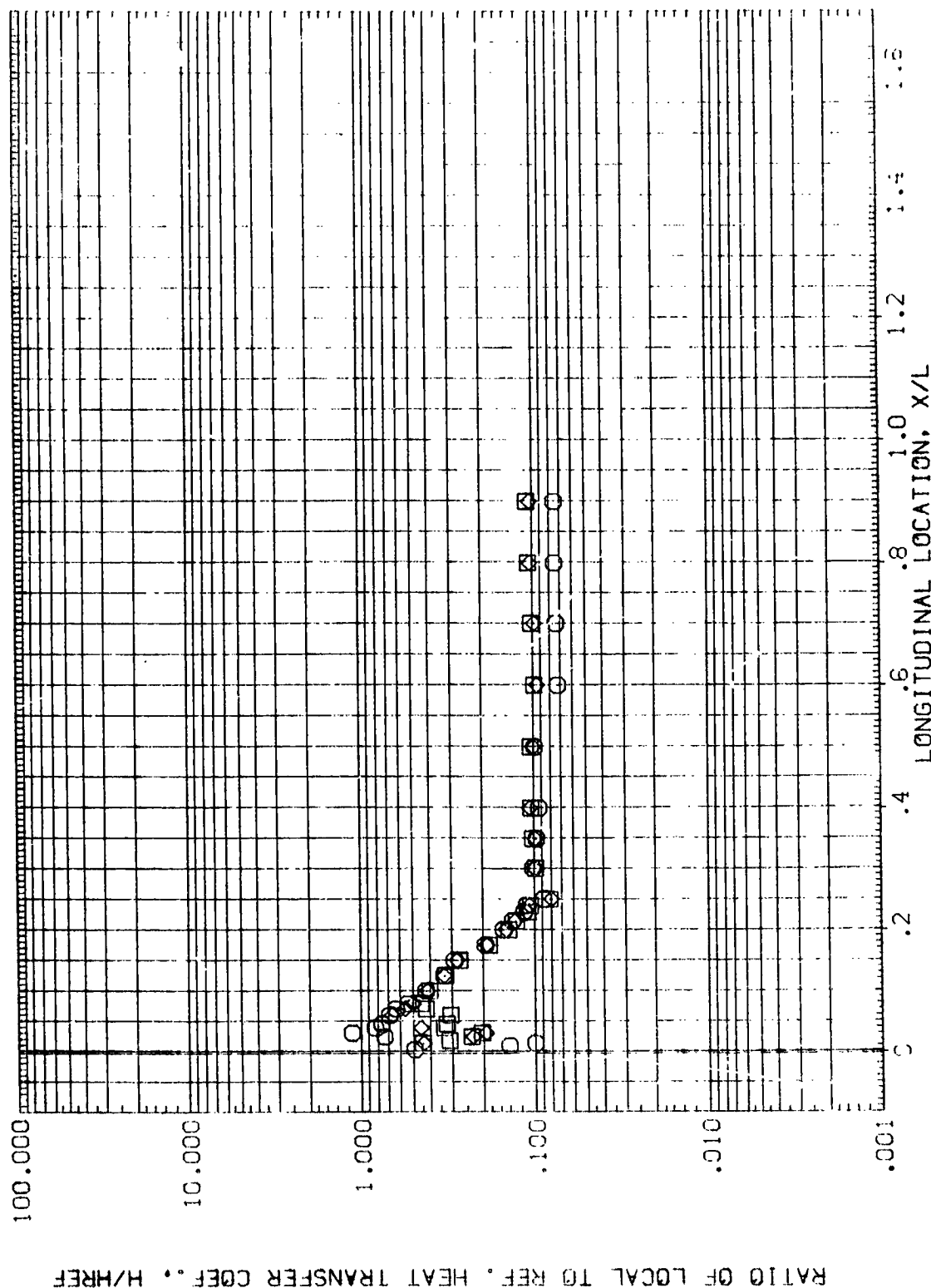


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = .000      PAGE 528

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNBFO5)    ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK    10.000    .000    5.000  
 (RNBFF22)    DATA NOT AVAILABLE    10.000    .000    5.000  
 (RNBFF26)    DATA NOT AVAILABLE    10.000    .000    5.000

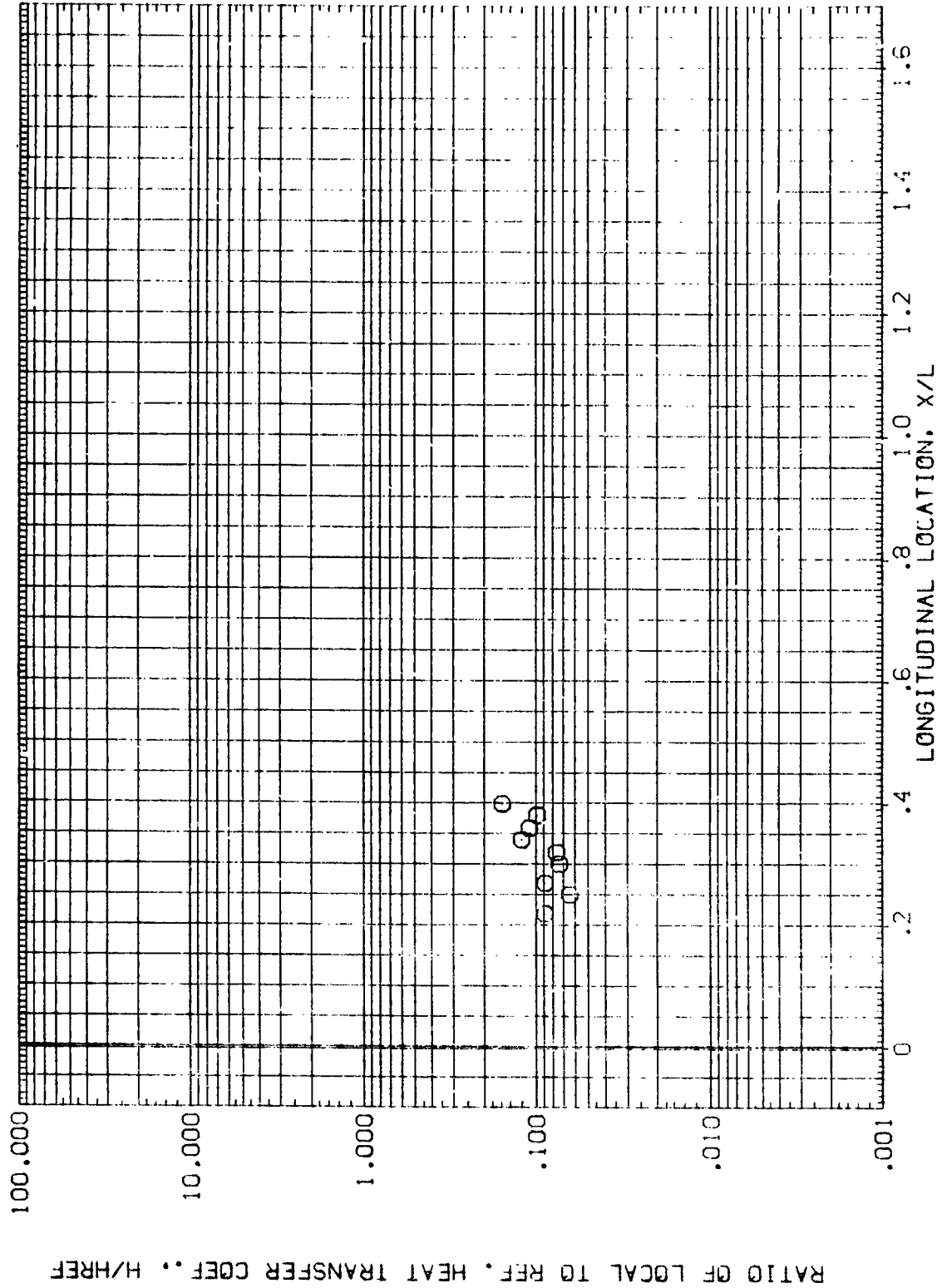


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB05)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0-S)      10.000      .000      5.000

(RNB22)      ARC3.5-211(IH48)ET /OGIVE /CLEAN      10.000      .000      5.000

(RNB26)      ARC3.5-211(IH48)ET /OGIVE /TRIP      10.000      .000      5.000

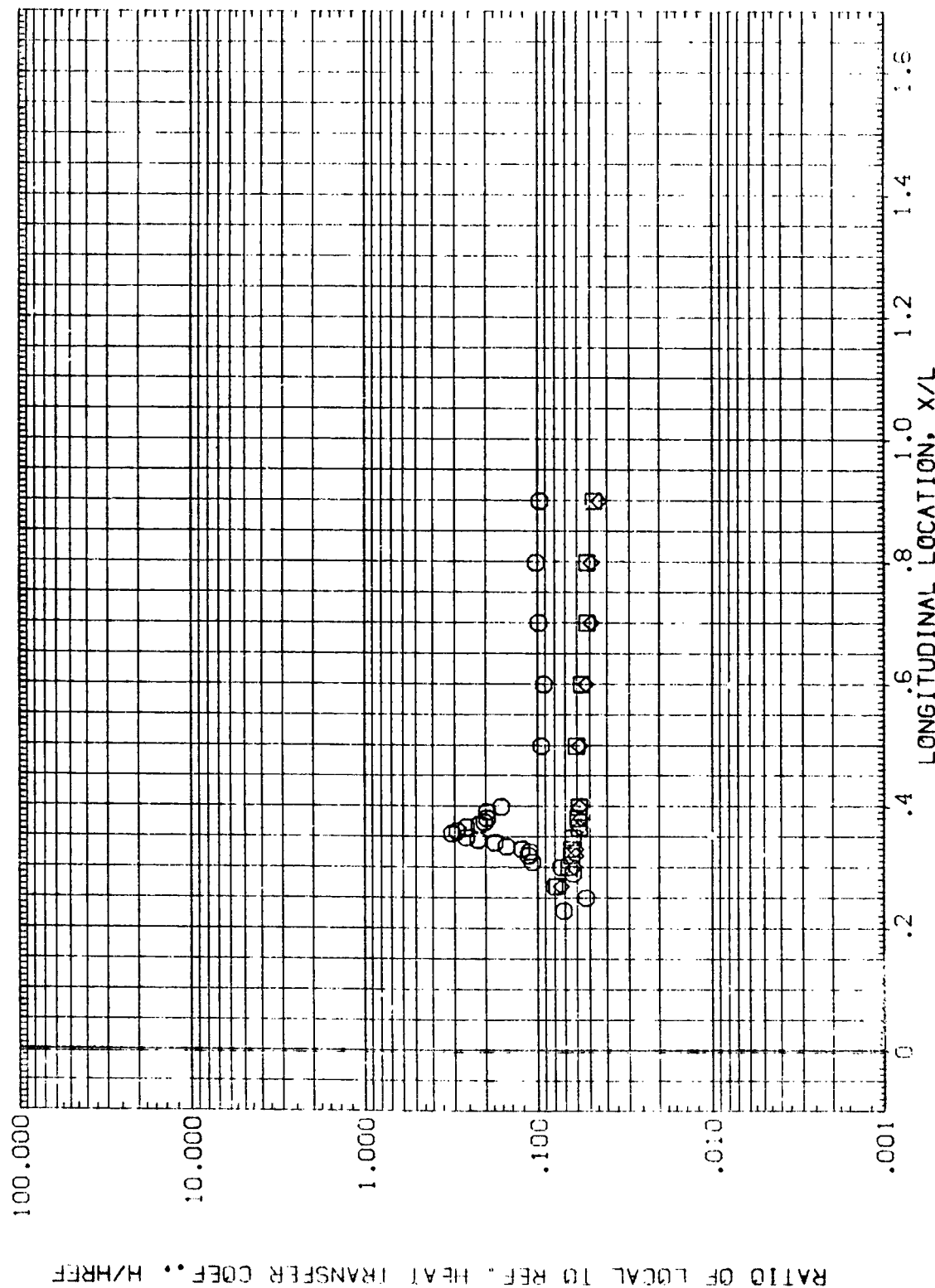


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.30C      HAW/HT = .900      PHI = 67.500



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNB05)  
(RNB22)  
(RNB26)

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
DATA NOT AVAILABLE  
DATA NOT AVAILABLE

ALPHA BETA RN/L  
10.000 .000 5.000  
10.000 .000 5.000  
10.000 .000 5.000

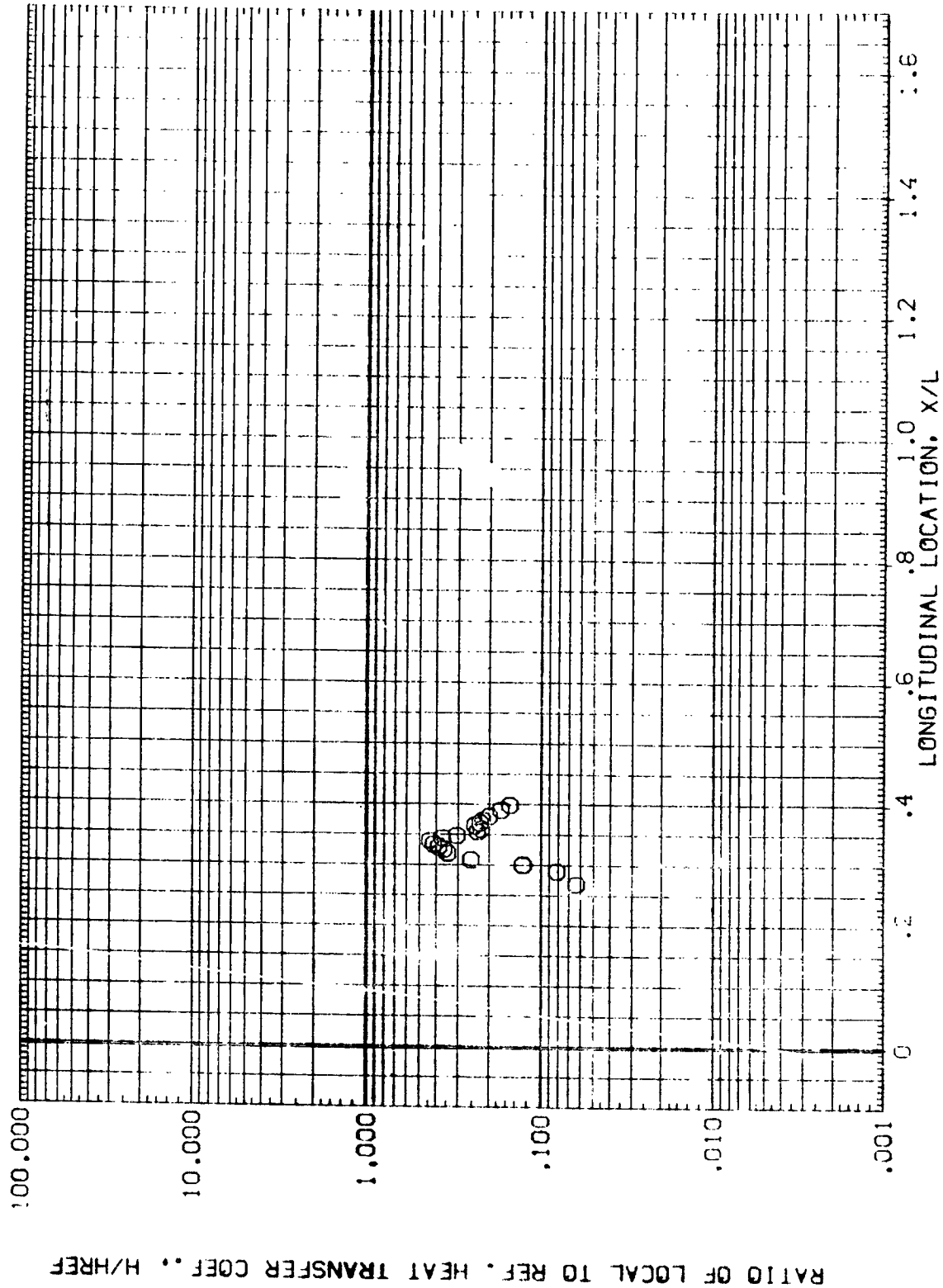


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RM/L
(RNB05)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	10.000	.000	5.000
(RNB22)	ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK	10.000	.000	5.000
(RNB26)	ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK	10.000	.000	5.000

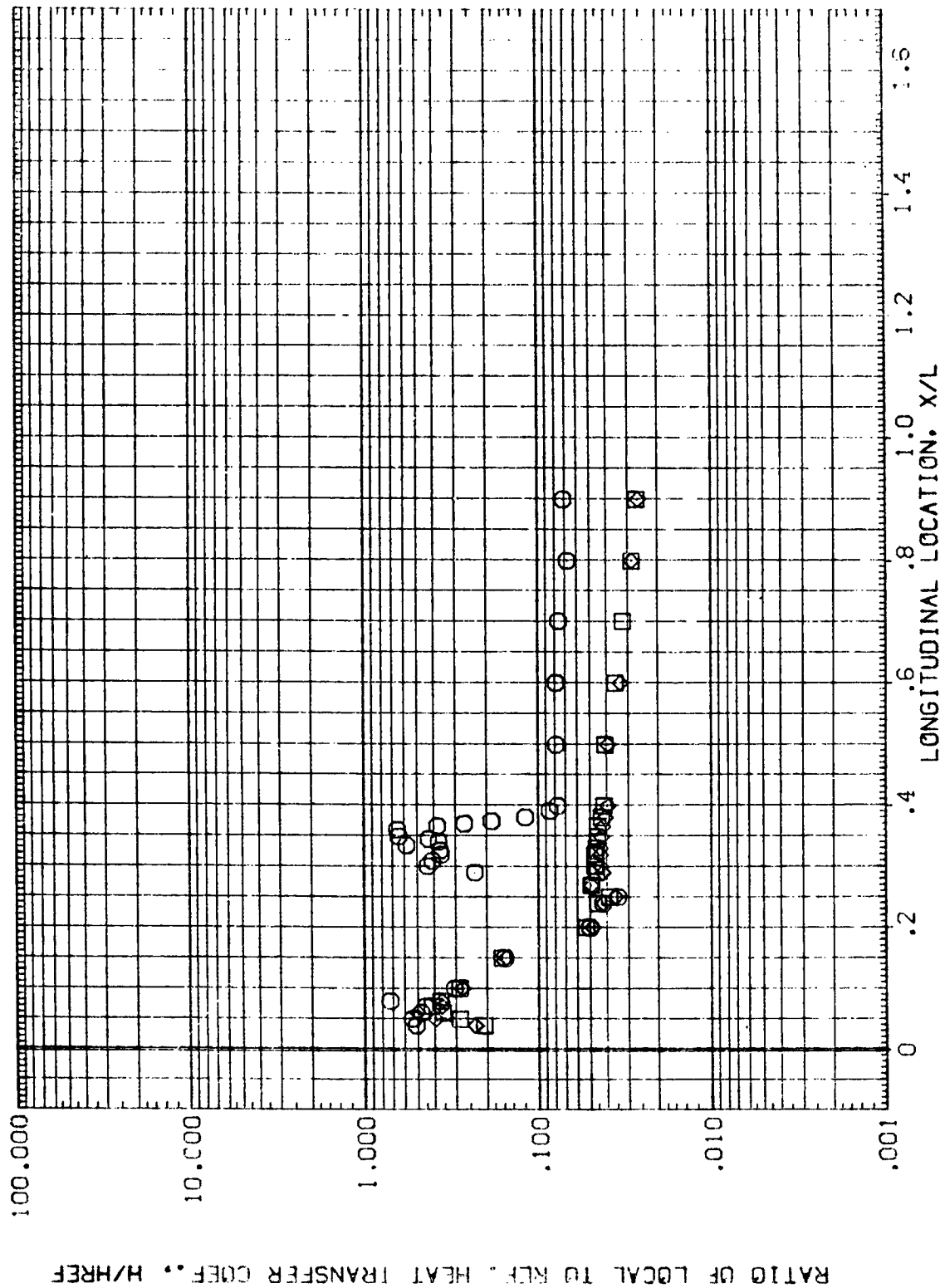


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RHSF25)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	10.000	.000	5.000
(RHSF26)	ARC3.5-211(IH48)JET /OGIVE /CLEAN EXT TANK	10.000	.000	5.000
(RHSF26)	ARC3.5-211(IH48)JET /OGIVE /CLEAN /TRIP EXT TANK	10.000	.000	5.000

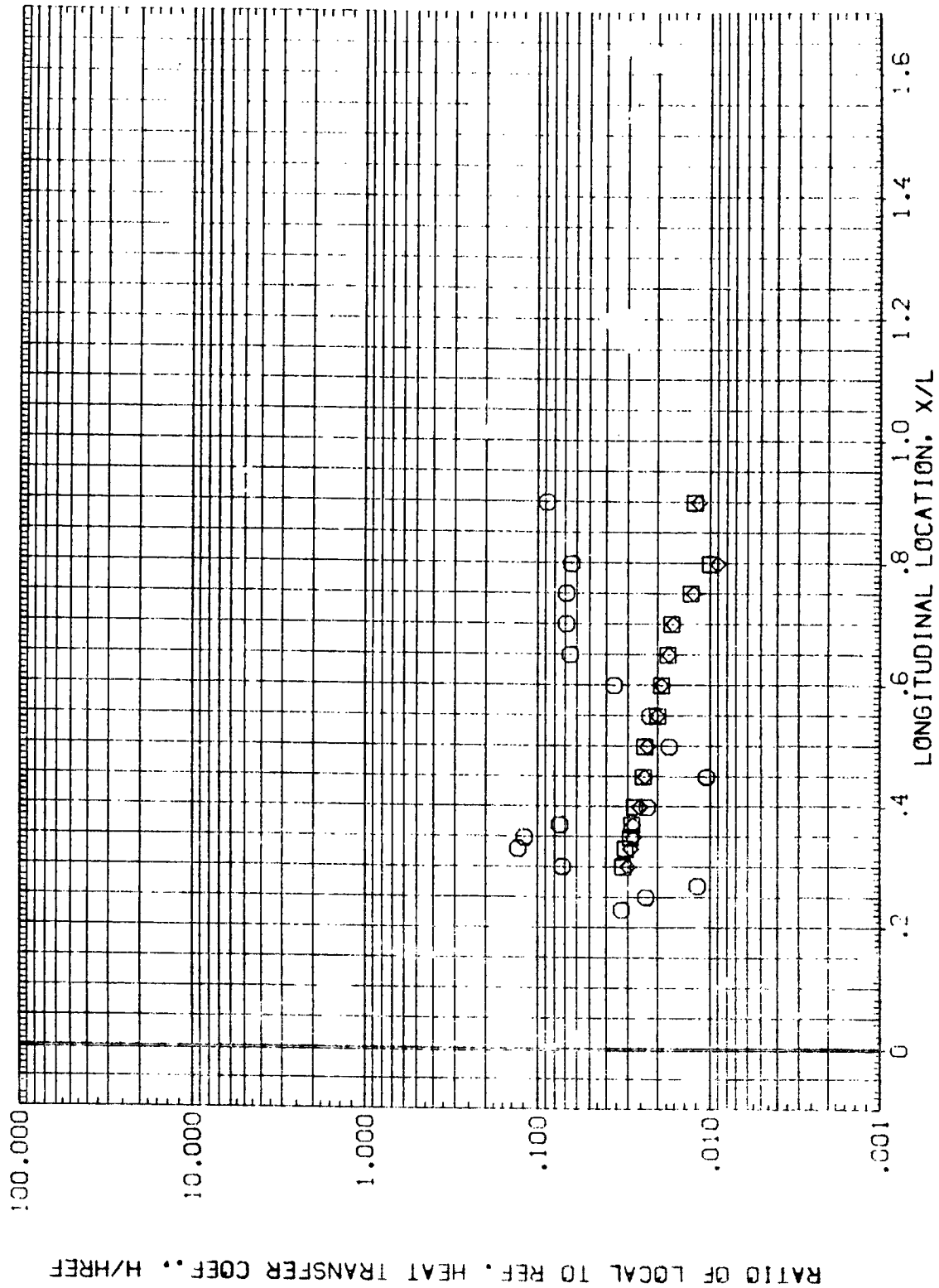


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(RNB05)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK      10.000      .000      5.000

(RNB22)      DATA NOT AVAILABLE      10.000      .000      5.000

(RNB26)      DATA NOT AVAILABLE      10.000      .000      5.000

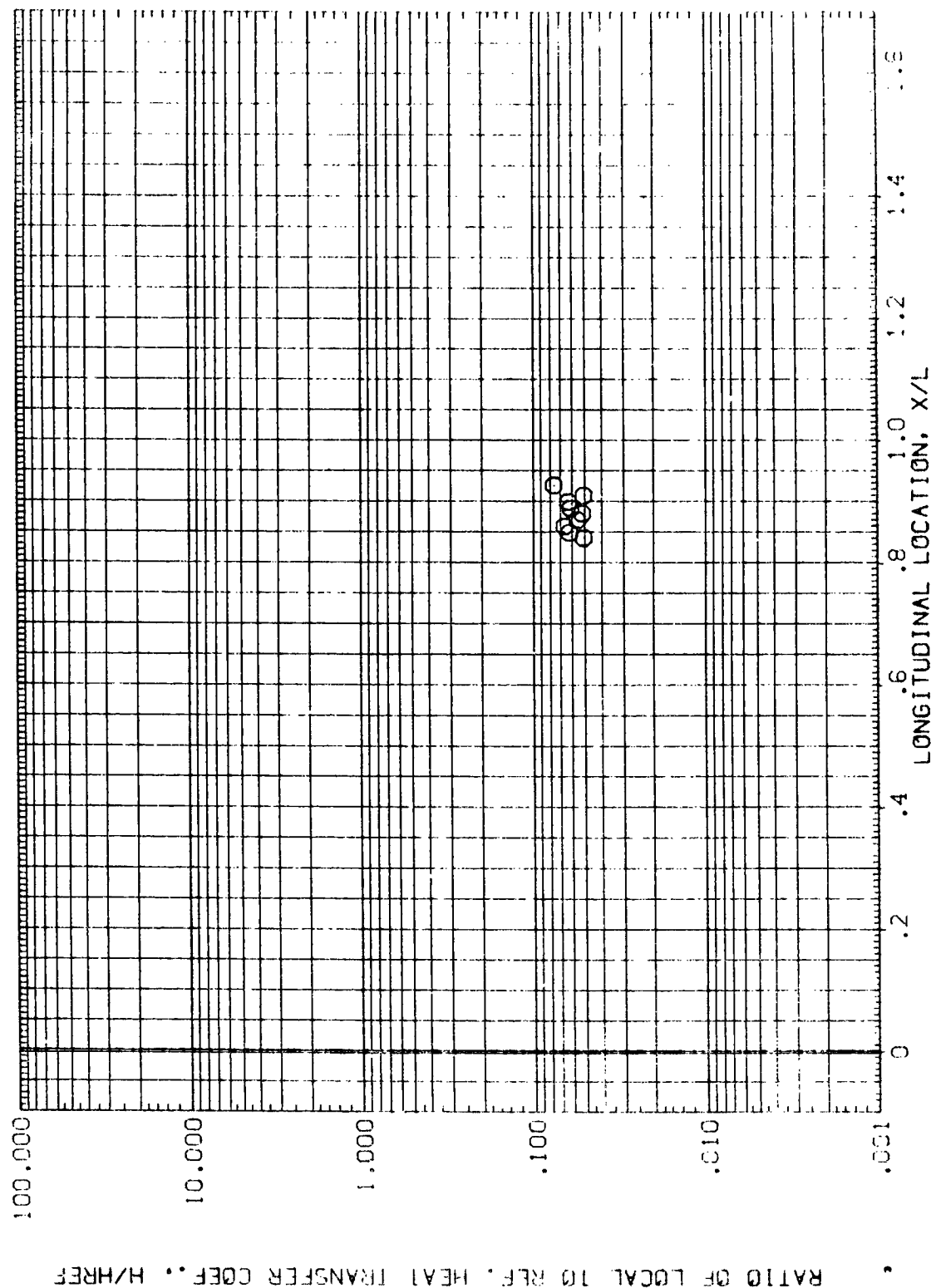


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 125.400

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNF25)	ARC3.5-211(I-48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	10.000	.000	5.000
(RNF26)	DATA NOT AVAILABLE	10.000	.000	5.000
(RNF27)	DATA NOT AVAILABLE	10.000	.000	5.000

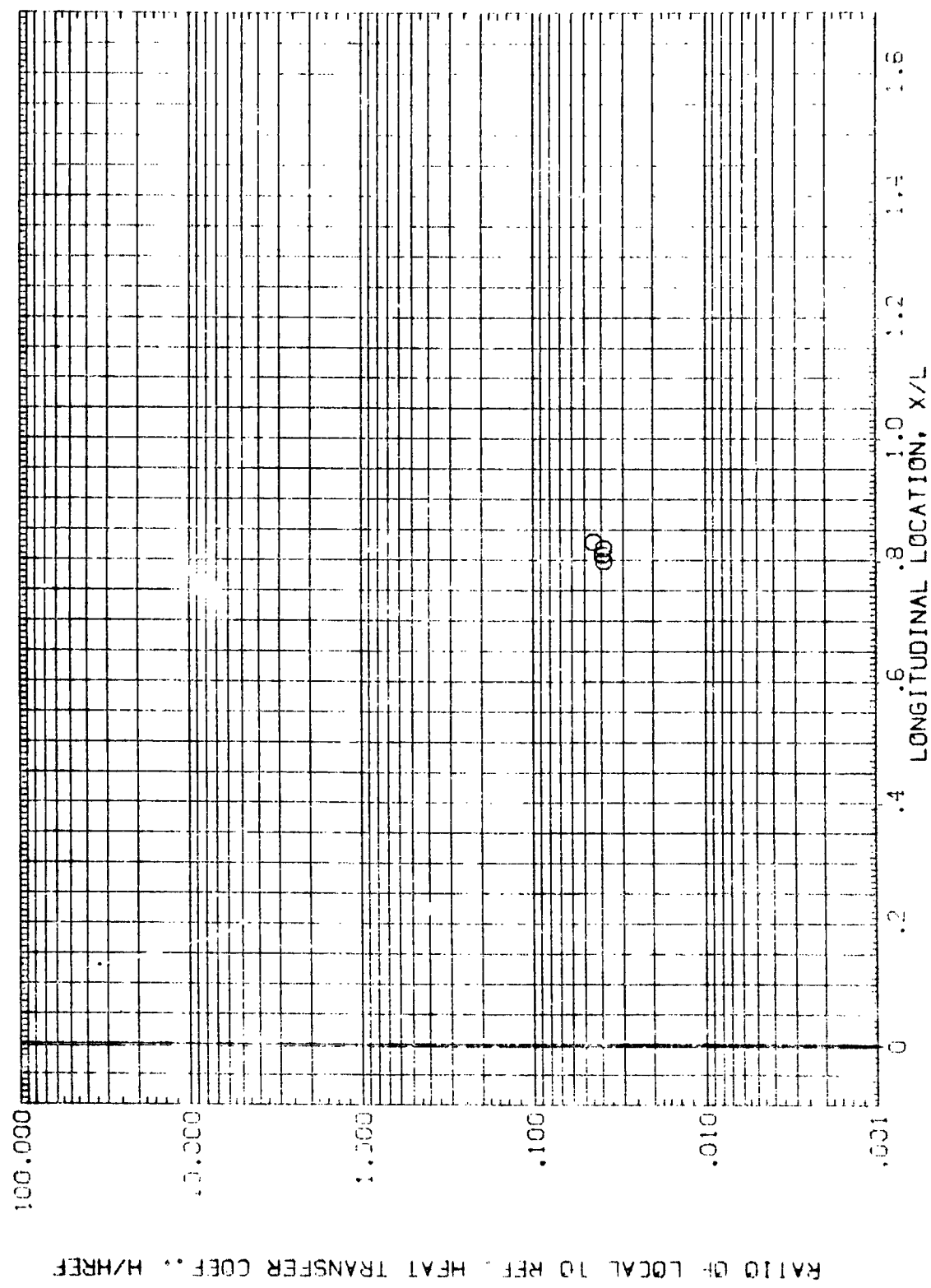


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RMBE05)      ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RMBE22)      ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK  
 (RMBE26)      ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA      BETA      RN/L  
 10.000      .000      5.000  
 10.000      .000      5.000  
 10.000      .000      5.000

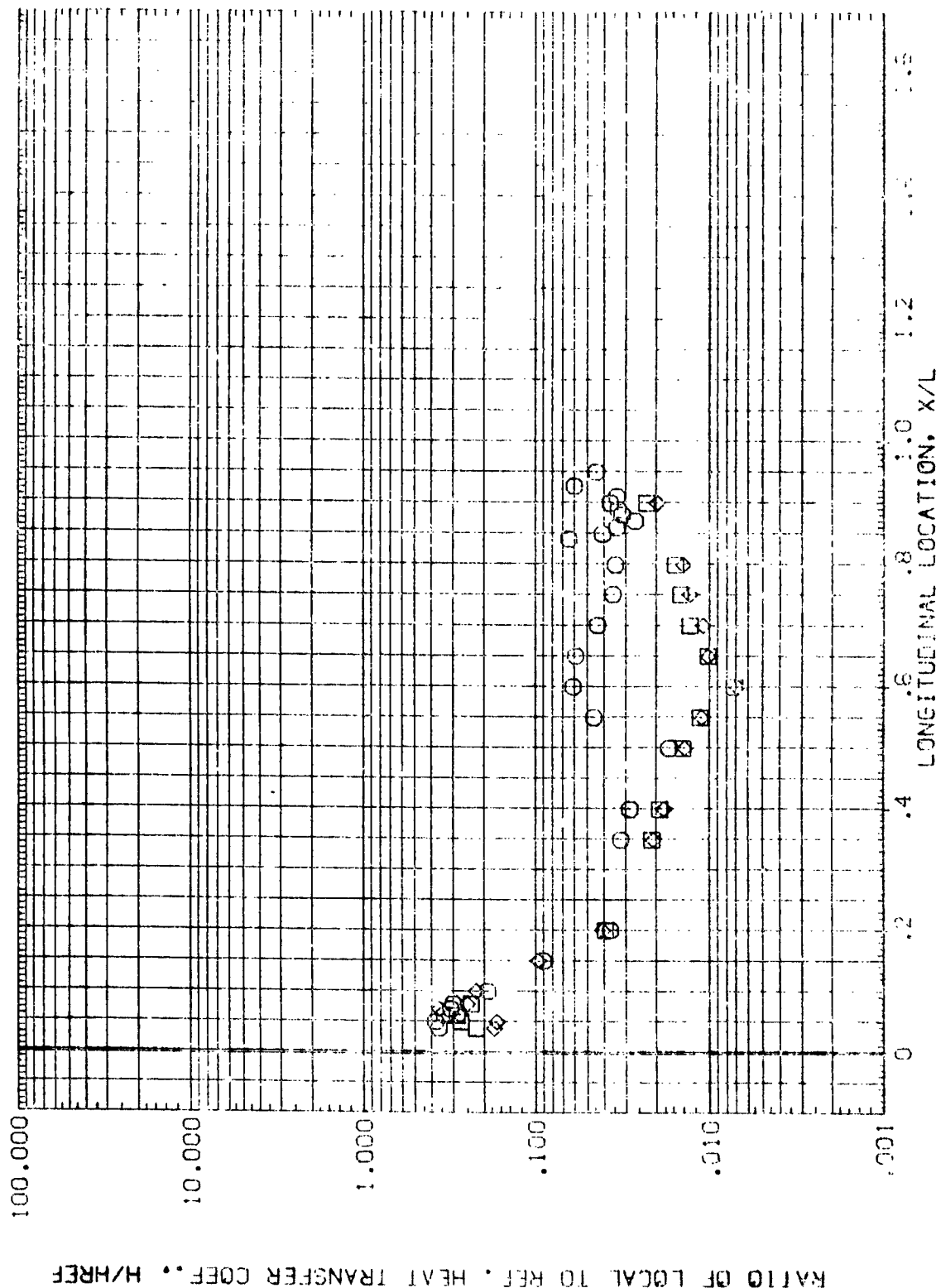


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300       $h_{AW}/h_{REF} = .900$        $P_{H-I} = 125.000$

DATA SET SYMBOL  
(RNBFO5)  
(RNBFO2)  
(RNBFO3)

CONFIGURATION DESCRIPTION

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
DATA NOT AVAILABLE  
DATA NOT AVAILABLE

ALPHA  
10.000  
10.000  
10.000

BETA  
.000  
.000  
.000

RH/L  
5.000  
5.000  
5.000

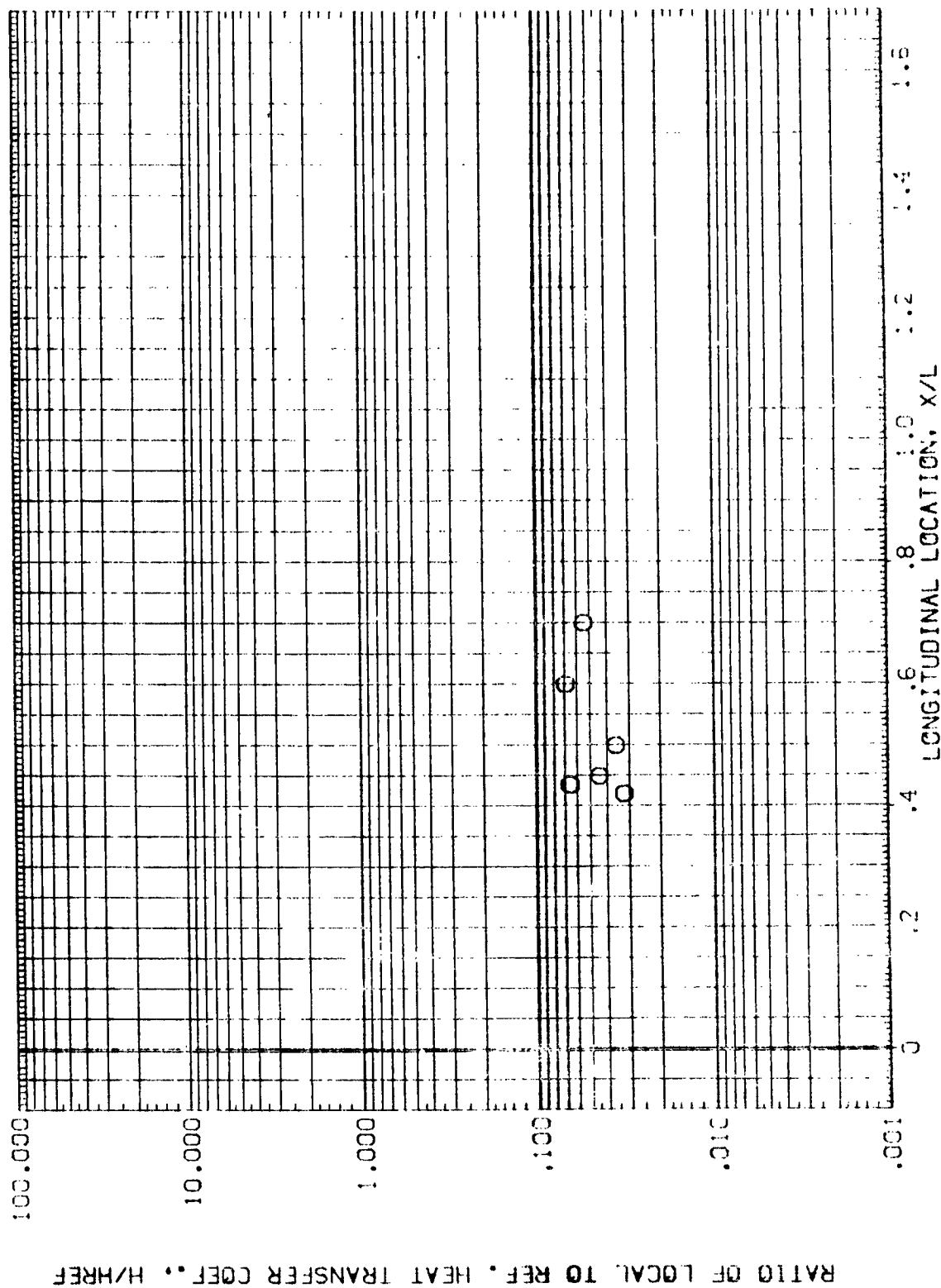


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

WALL = 5.000 HAW/HT = .900 PHI = 142.300

# DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNB05)	ARC3.5-211(I48)OTS/NIPPLE/P/TRIP(0-S) EXT TANK	10.000	.000	5.000
(RNB22)	ARC3.5-211(I48)ET /OGIVE /CLEAN EXT TANK	10.000	.000	5.000
(RNB26)	ARC3.5-211(I48)ET /OGIVE /CLEAN /TRIP EXT TANK	10.000	.000	5.000

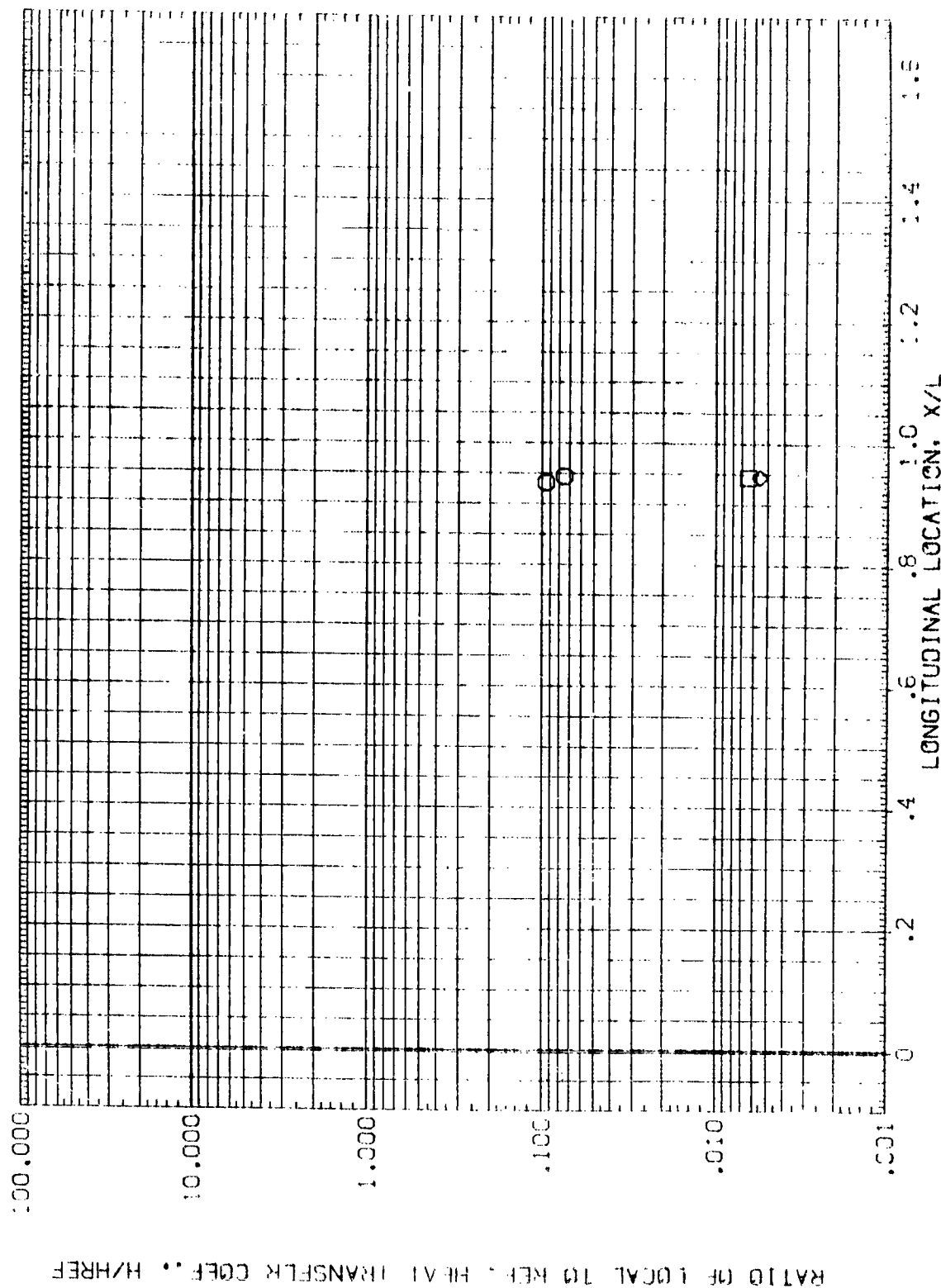


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 DIAW/HT = .900 PHI = 154.980



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB25) ARC3-5-211(IH48)OTS/N:PPLE/P/TRIP(O+S) EXT TANK  
 (RNB22) DATA NOT AVAILABLE  
 (RNB26) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 10.000 .000 5.000  
 10.000 .000 5.000  
 10.000 .000 5.000

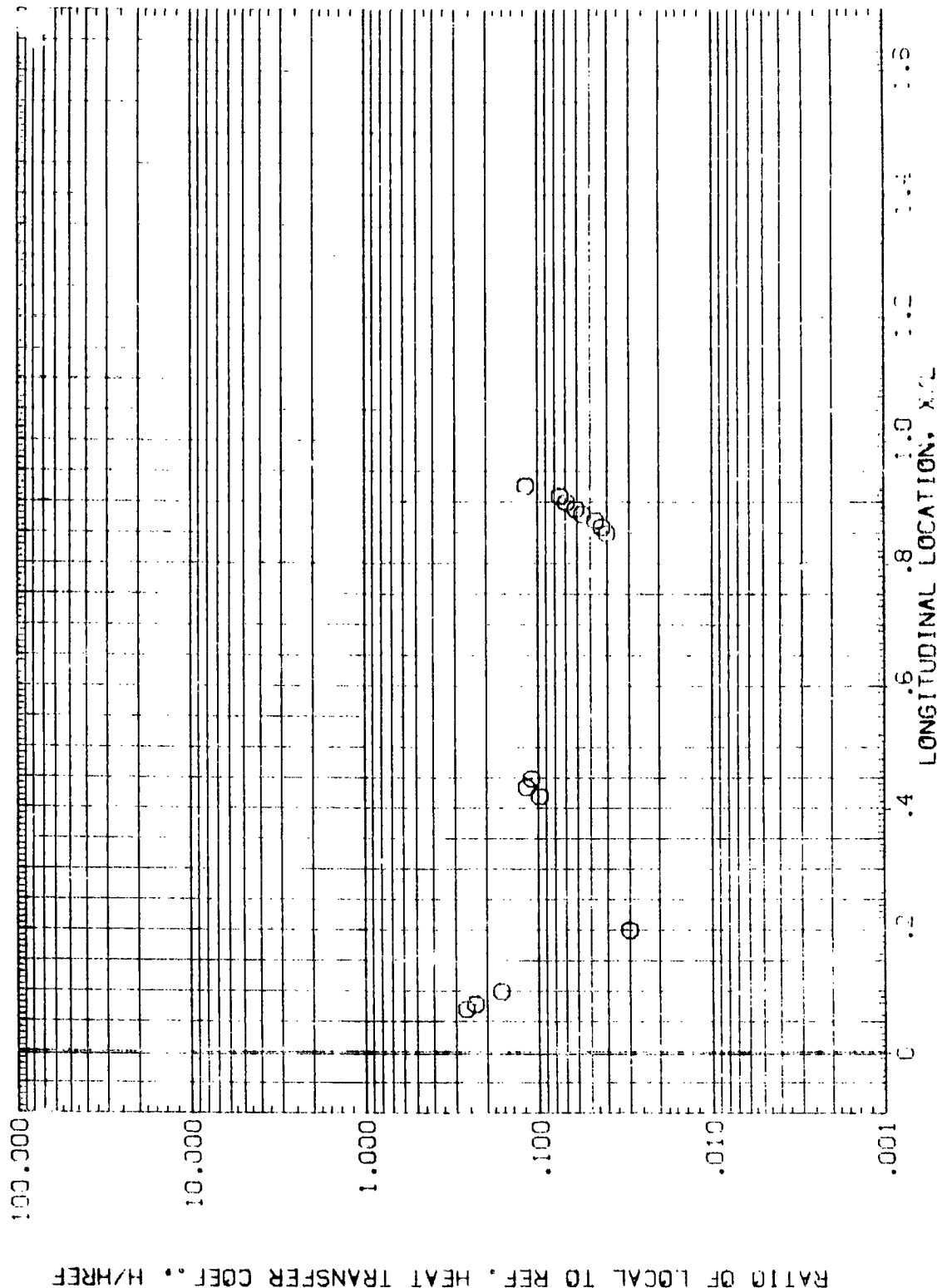


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

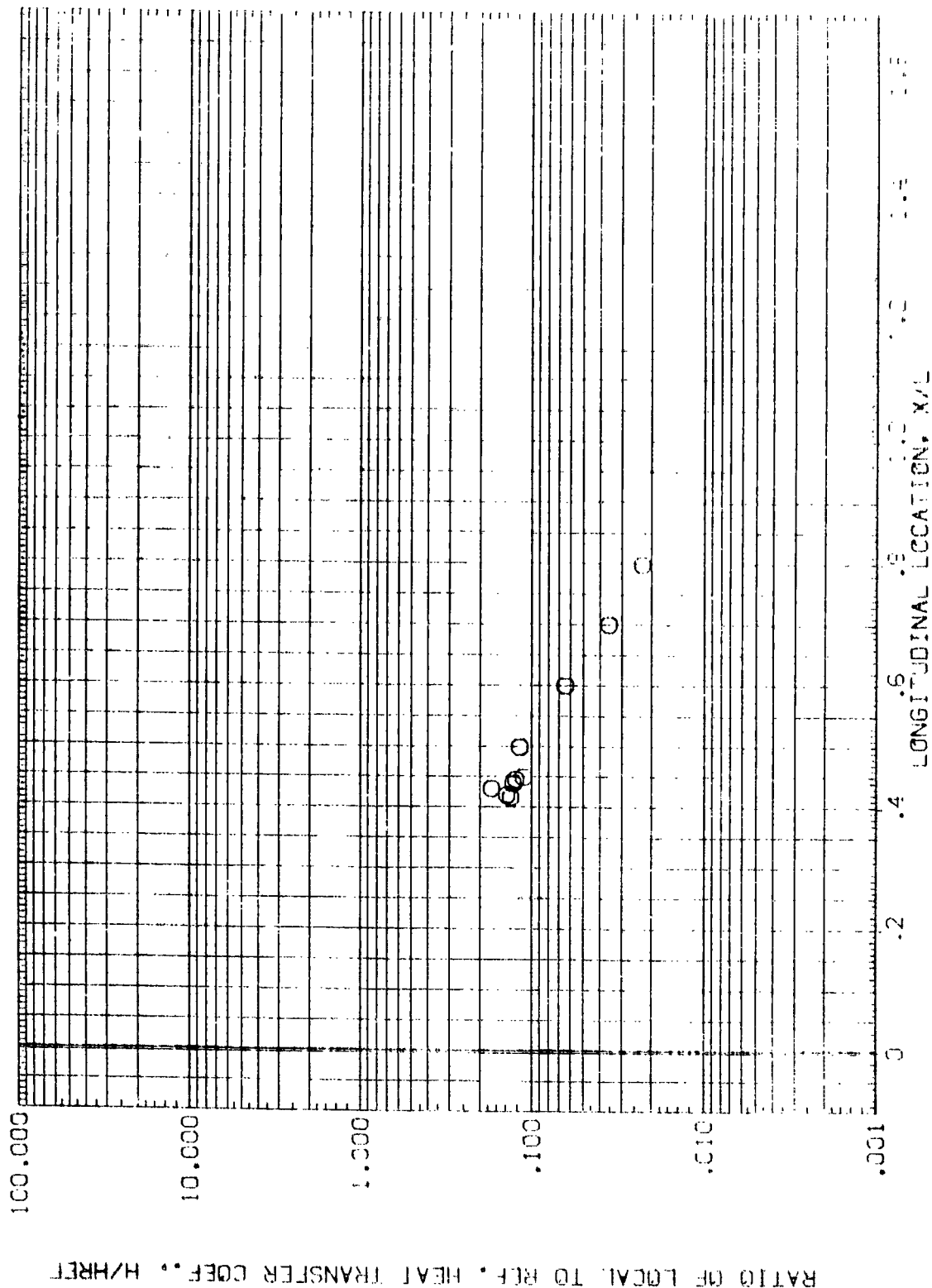
MACH = 5.300 HAW/HT = .900 FH = 157.500

DATA SET SYMBOL: CONFIGURATION DESCRIPTION: ALPHA BETA PA/L

(RHS05) SRC3-5-211C1H48JOTS/NIPPLE/P/TRIP(O-S) EXT TANK 10.000 5.000

(RHS22) DATA NOT AVAILABLE 10.000 5.000

(RHS26) DATA NOT AVAILABLE 10.000 5.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (R33F05) AR33-S-211C(H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (R33F03) DATA NOT AVAILABLE  
 (R33F23) DATA NOT AVAILABLE

ALPHA BETA RM/L  
 :0.000 :0.000 5.000  
 :0.000 :0.000 5.000  
 :0.000 :0.000 5.000

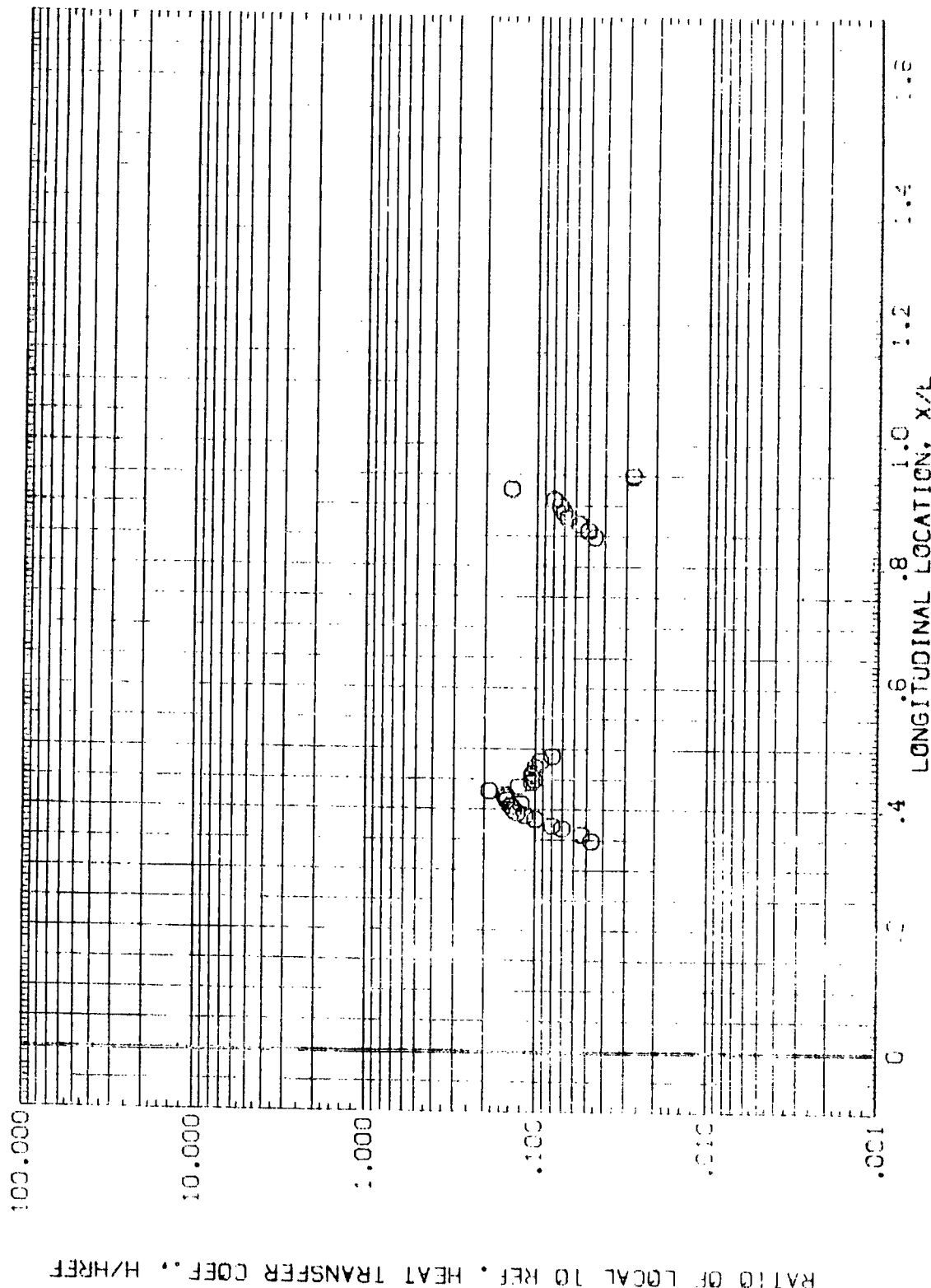


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300  $h_{AW}/h_{REF}$  = .900  $PR_1$  = 168.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

ARC3.5-211C1H48JTS/NIPPLE/P/TRIP(0+S)      EXT TANK      10.000      .000      5.000

ARC3.5-211C1H48JET /OGIVE /CLEAN /TRIP      EXT TANK      10.000      .000      5.000

ARC3.5-211C1H48JET /OGIVE /CLEAN /TRIP      EXT TANK      10.000      .000      5.000

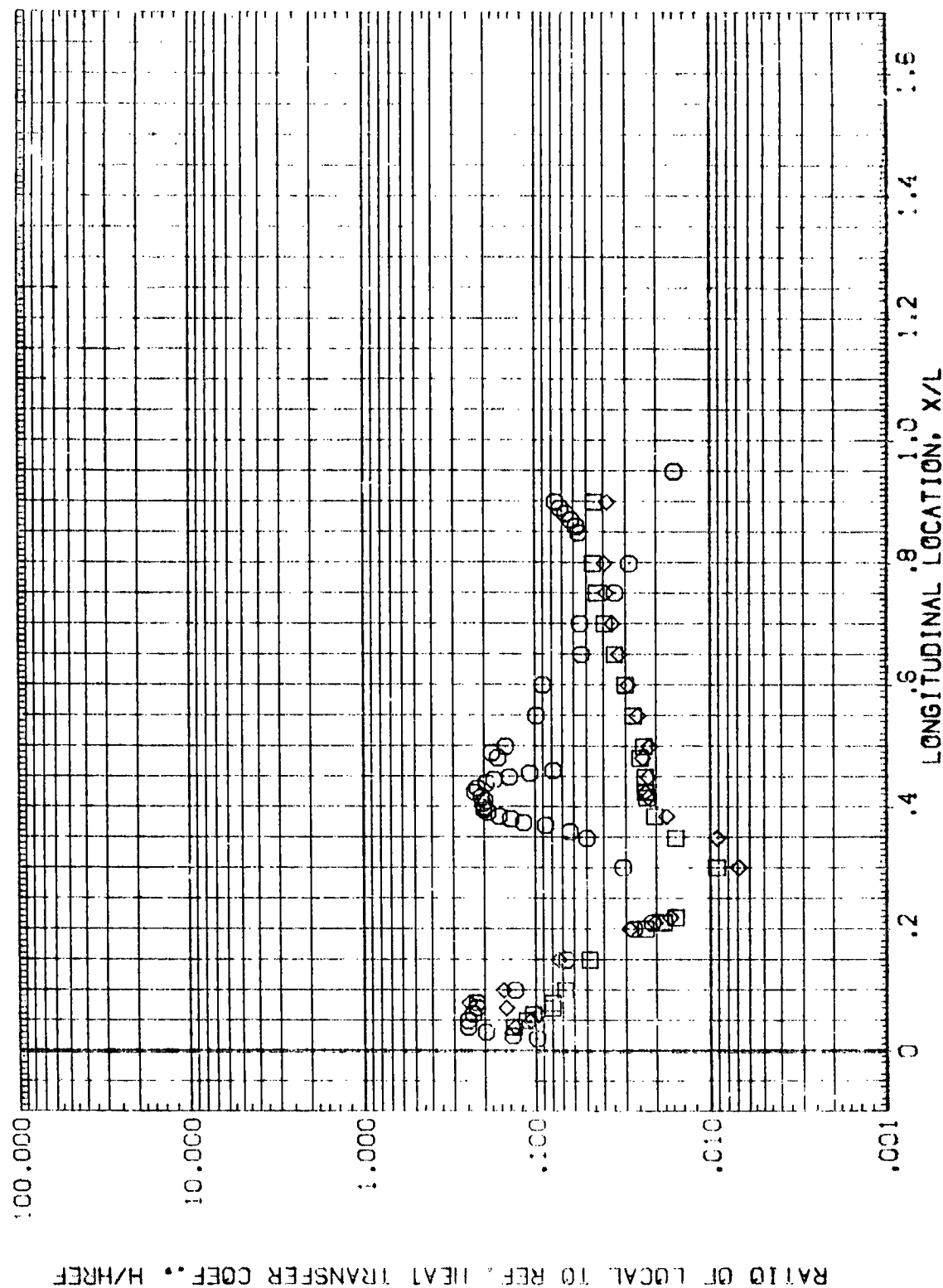


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 180.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(R3F05)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	10.000	.000	5.000
(R3F22)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	10.000	.000	5.000
(R3F23)	ARC3.5-211(IH48)ET /OGIVE /TRIP	10.000	.000	5.000

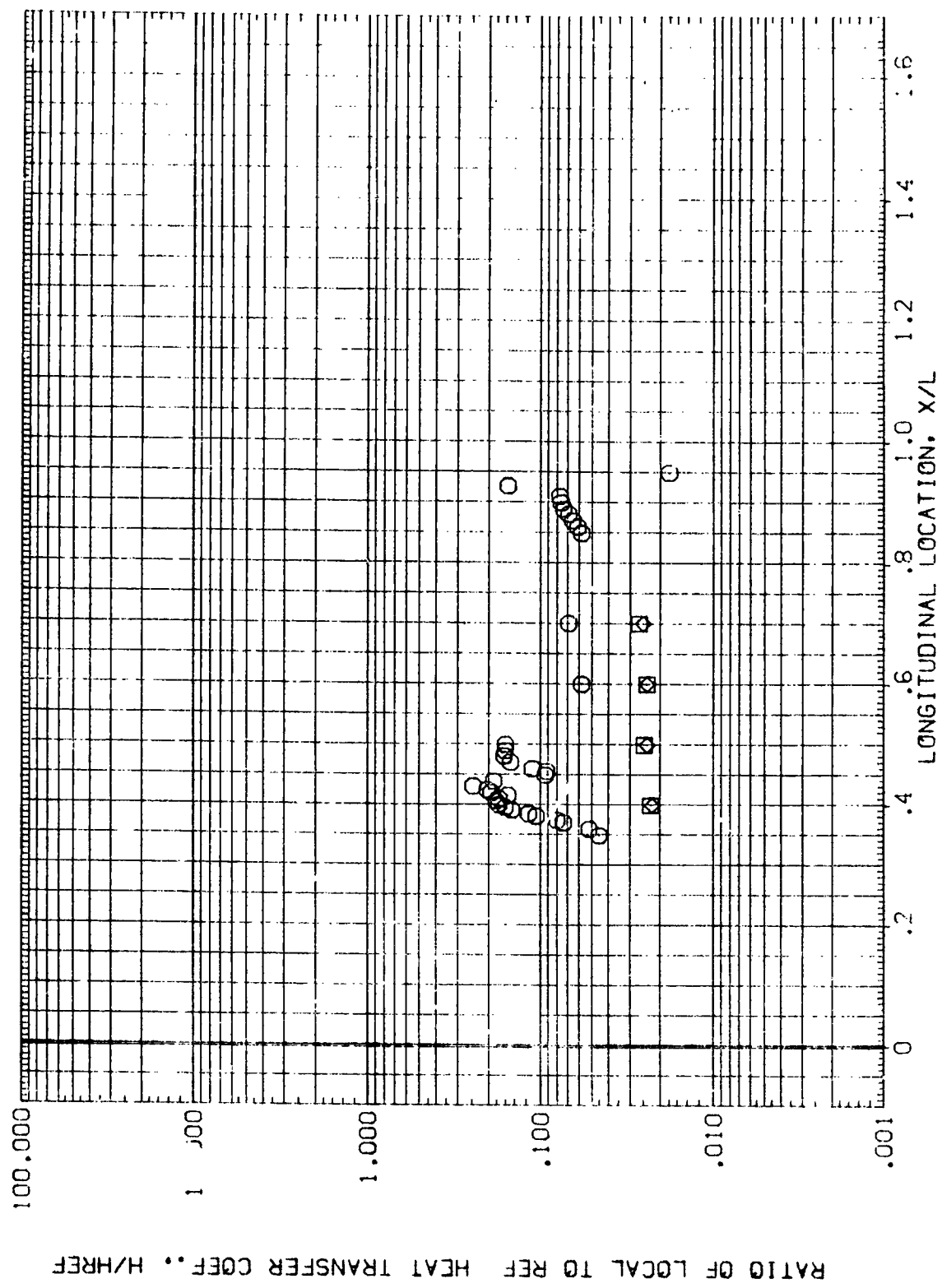


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO5) ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFB22) DATA NOT AVAILABLE  
 (RNBFB26) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 10.000 .000 5.000  
 10.000 .000 5.000  
 10.000 .000 5.000

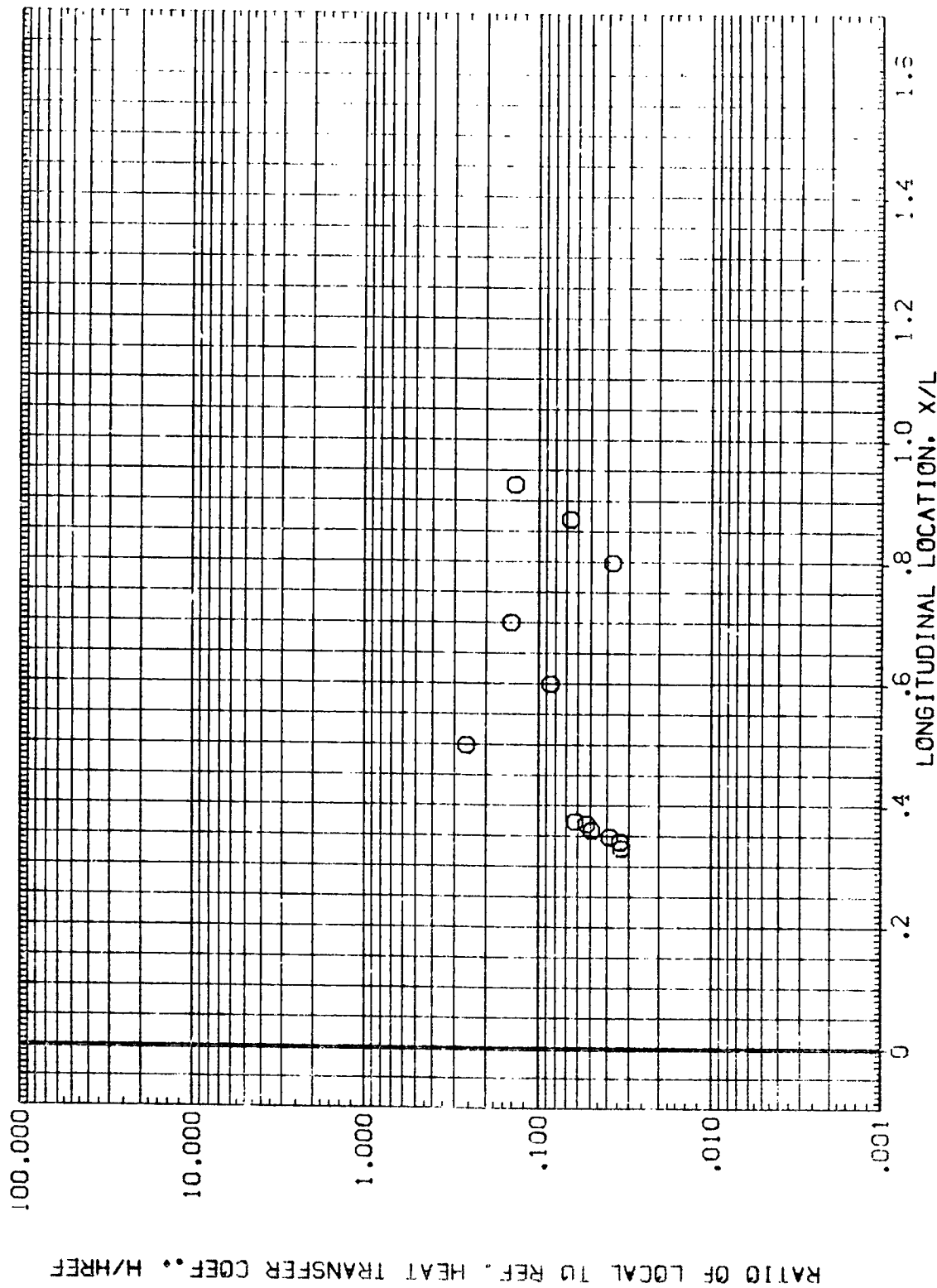


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 197.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (PMB-25) APC3 5-211C (H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RUB-23) DATA NOT AVAILABLE  
 (RUB-25) DATA NOT AVAILABLE

ALPHA BETA RN/L  
 10.000 .000 5.000  
 10.000 .000 5.000  
 10.000 .000 5.000

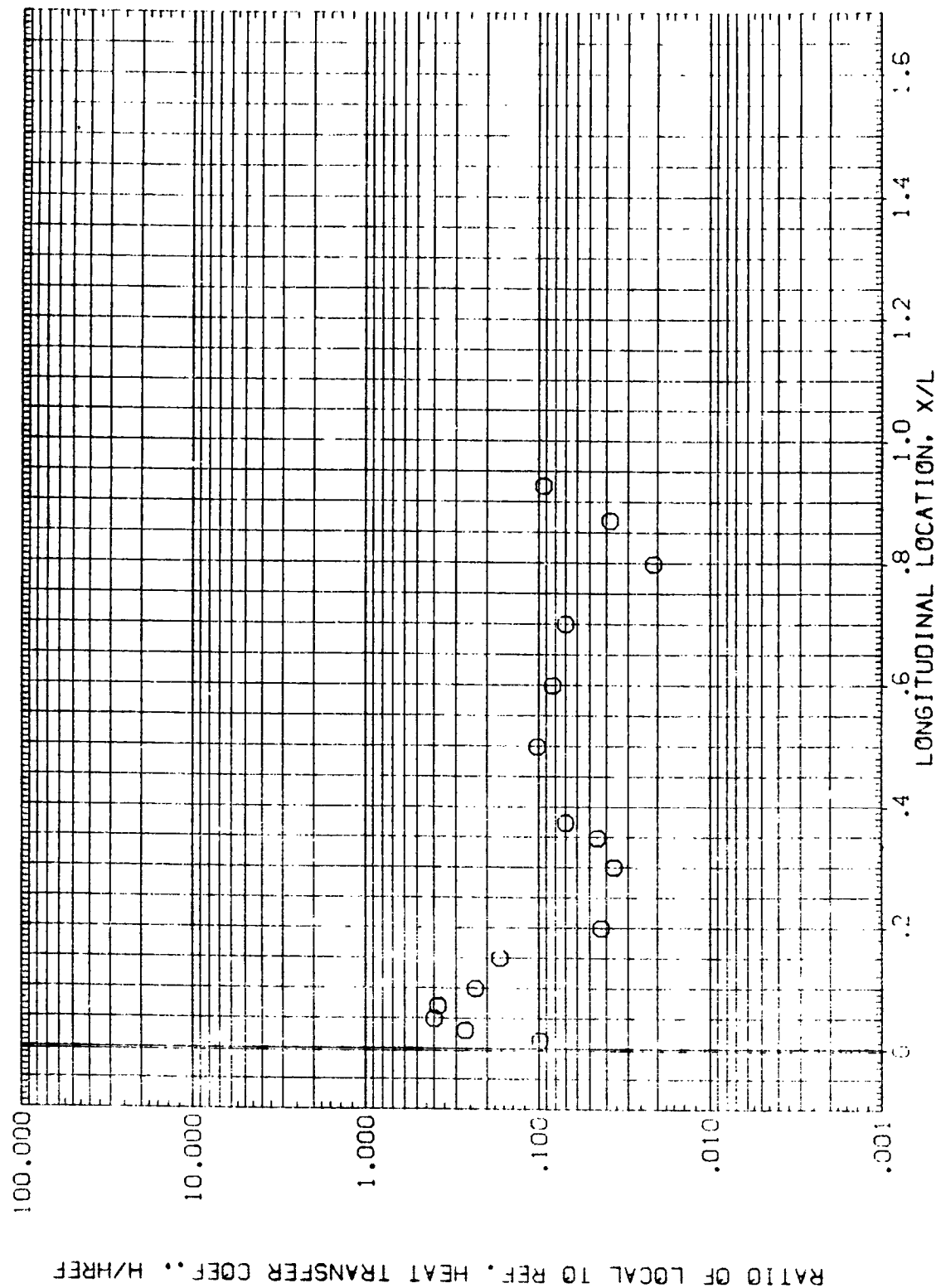


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.200 HAW/HT .900 PHI 209.800

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO5)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S)	10.000	.000	5.000
(RNB22)	ARC3.5-211(IH48)ET /OGIVE /CLEAN	10.000	.000	5.000
(RNB26)	ARC3.5-211(IH48)ET /OGIVE /TRIP	10.000	.000	5.000

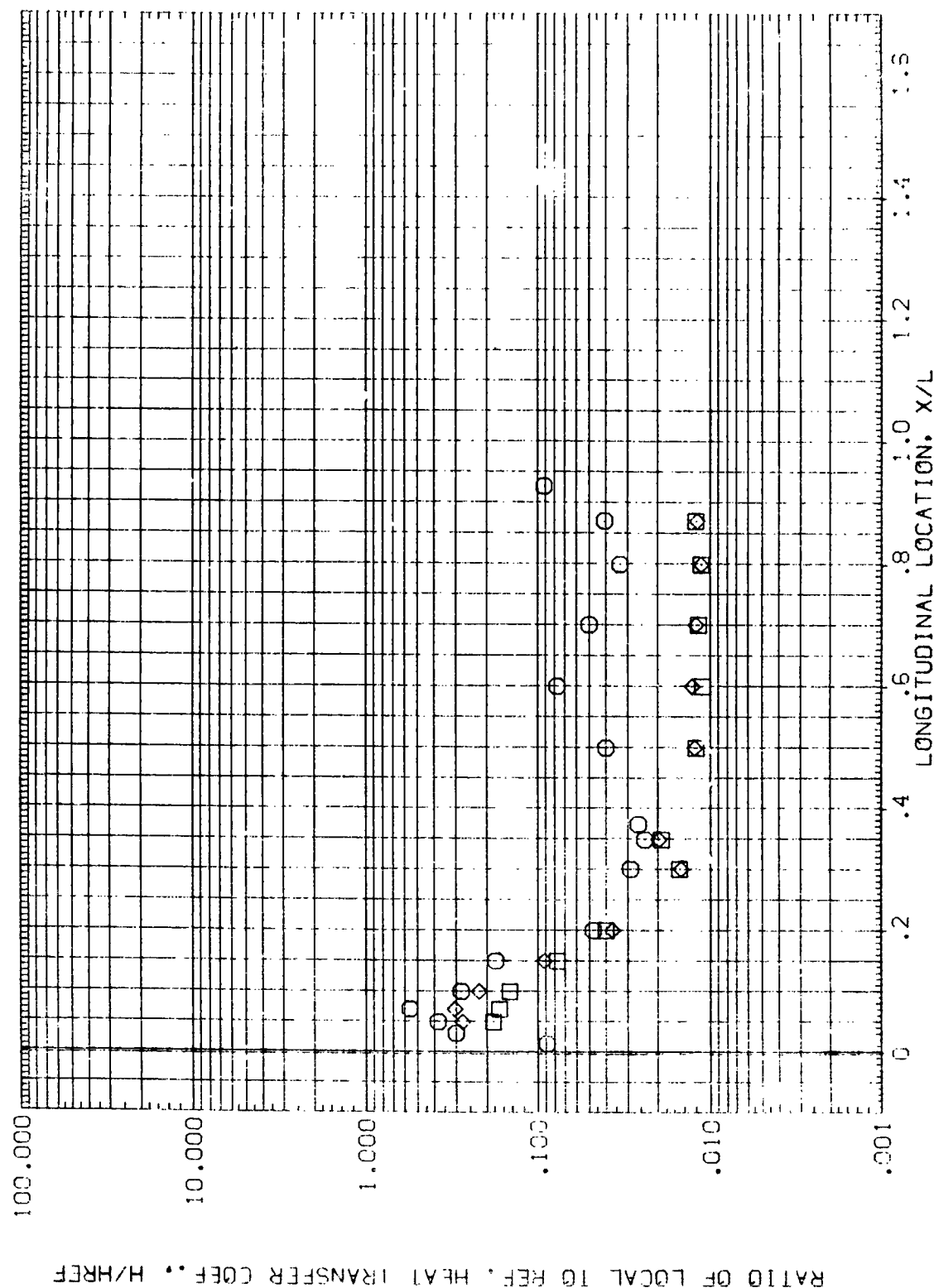


FIG. 10 EFFECT OF CONFIGURATION ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	ReN/L
(RNBFC1)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	1.500
(RNBFC6)	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFC2)	ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK	.000	.000	5.000

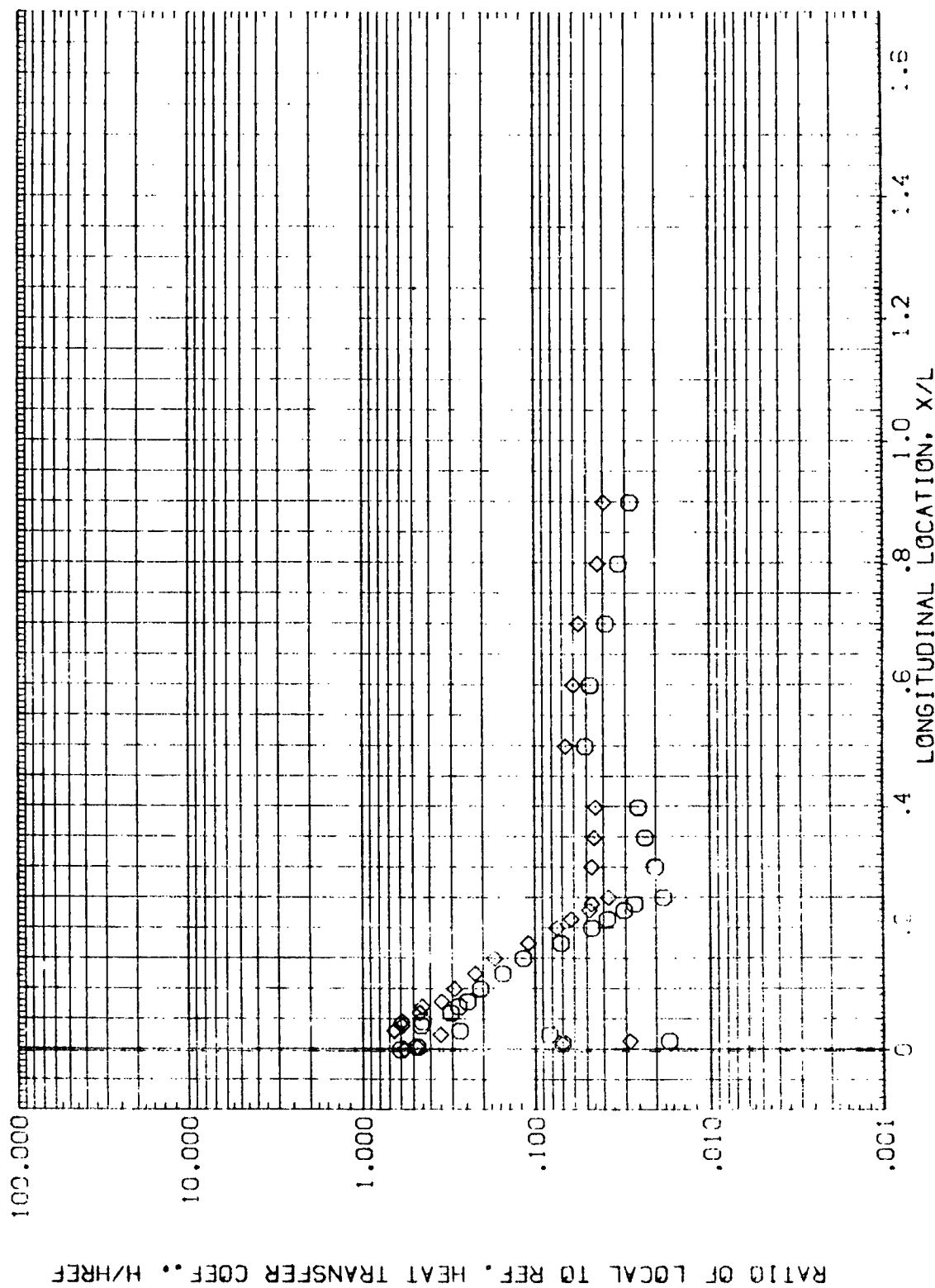


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO1) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK  
 (RNBFO6) DATA NOT AVAILABLE  
 (RNBFO2) ARC3.5-211(IH46)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

ALPHA BETA RN/L  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 5.000

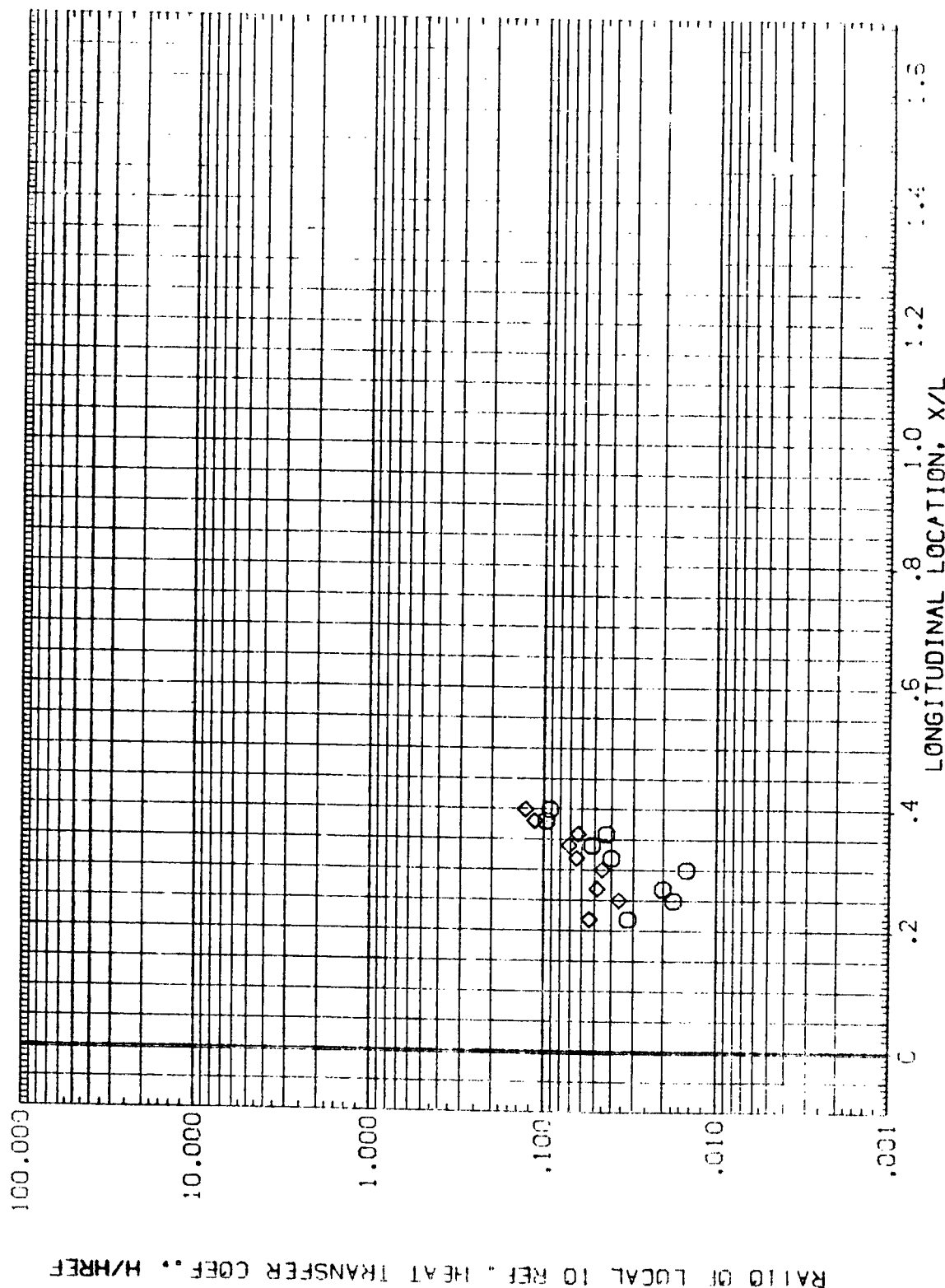


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DAT- SET 51023L CONFIGURATION DESCRIPTION ALPHA BETA RN/L  
 (R18F01) ARC3-5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK .000 .000 1.500  
 (R18F02) DATA NOT AVAILABLE .000 .000 1.500  
 (R18F03) ARC3-5-211C(H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK .000 .000 5.000

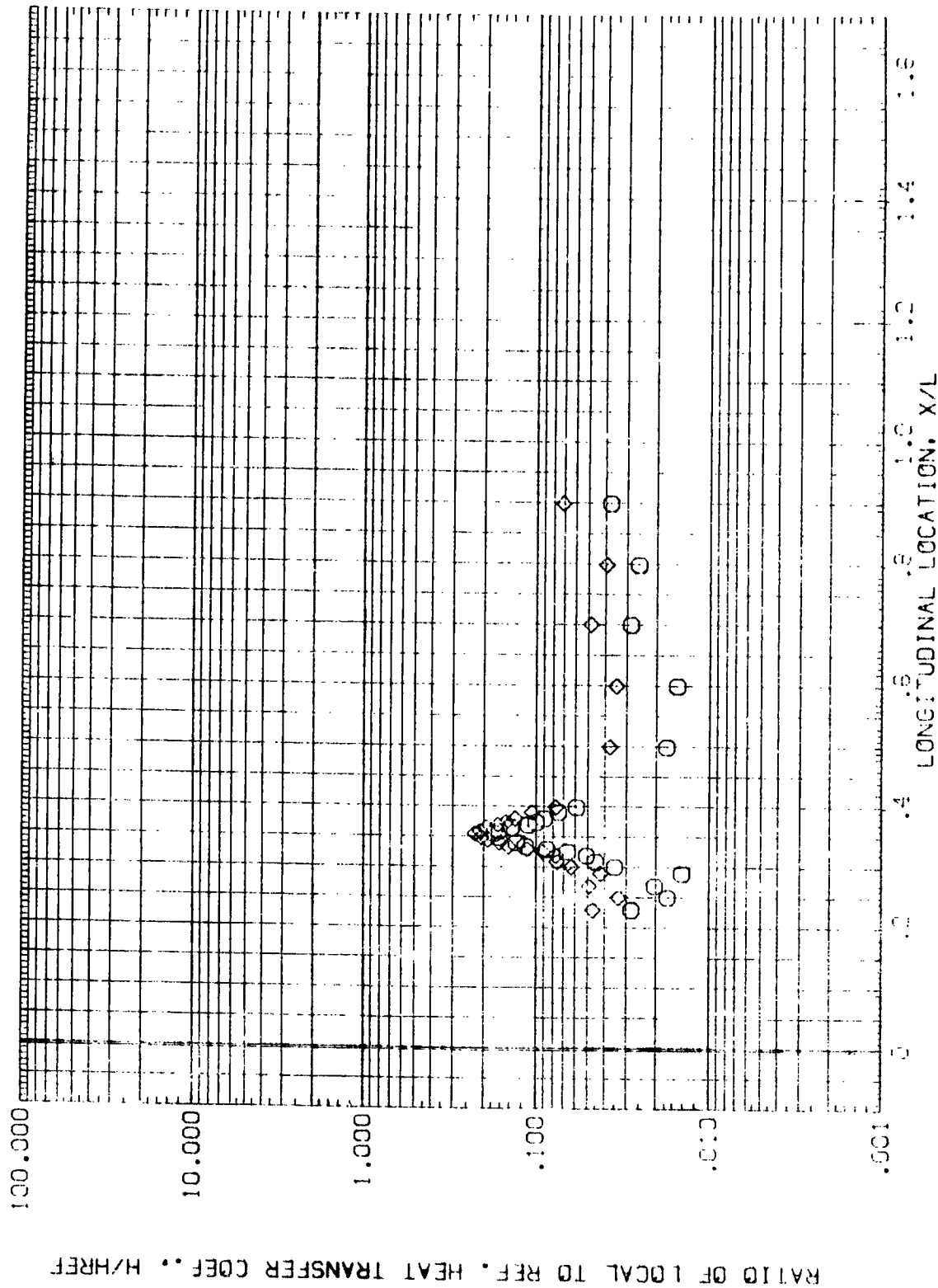


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.000 WEIGHT = .000 P-1 = 67.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNF001)      ARC3.5-211(C1H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNF006)      DATA NOT AVAILABLE  
 (RNF002)      ARC3.5-211(C1H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA      BETA      RN/L  
 .000      .000      1.500  
 .000      .000      1.500  
 .000      .000      5.000

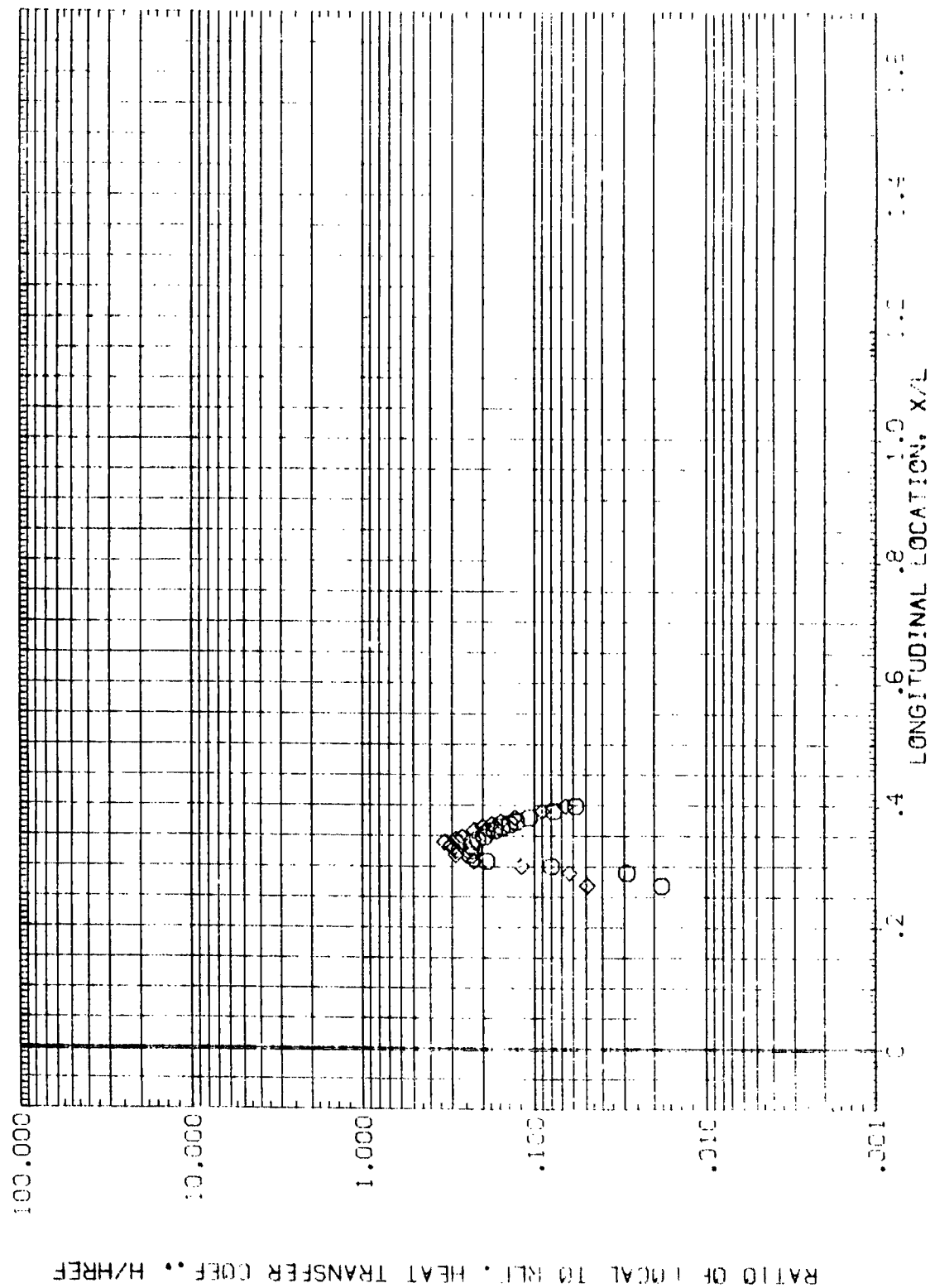


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.500      HAWKITE = .900      PH = 78.500      PAGE 550

DAT/ SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    R<sub>h</sub> L  
 (R33F01)    ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK    .000    .000    1.500  
 (R33F02)    DATA NOT AVAILABLE    .000    .000    1.500  
 (R33F03)    ARC3.5-211C(H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK    .000    .000    1.500

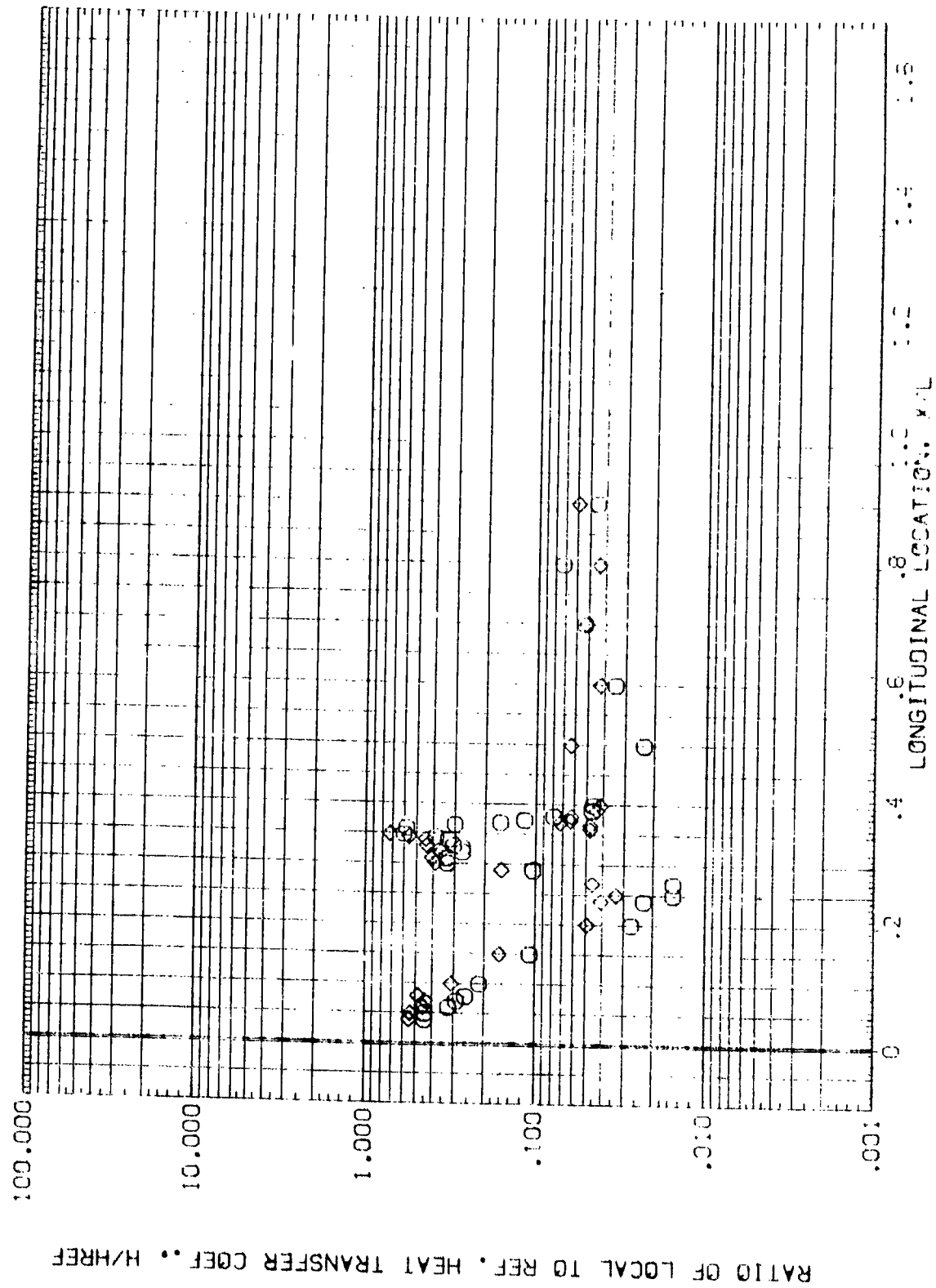


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.000    h<sub>ref</sub>/h<sub>t</sub> = .900    P<sub>h</sub> = 30.000

DATA SET SIM30L CONFIGURATION DESCRIPTION  
 (RNS001) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNS002) DATA NOT AVAILABLE  
 (RNS003) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA BET1 R1/L  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 5.000

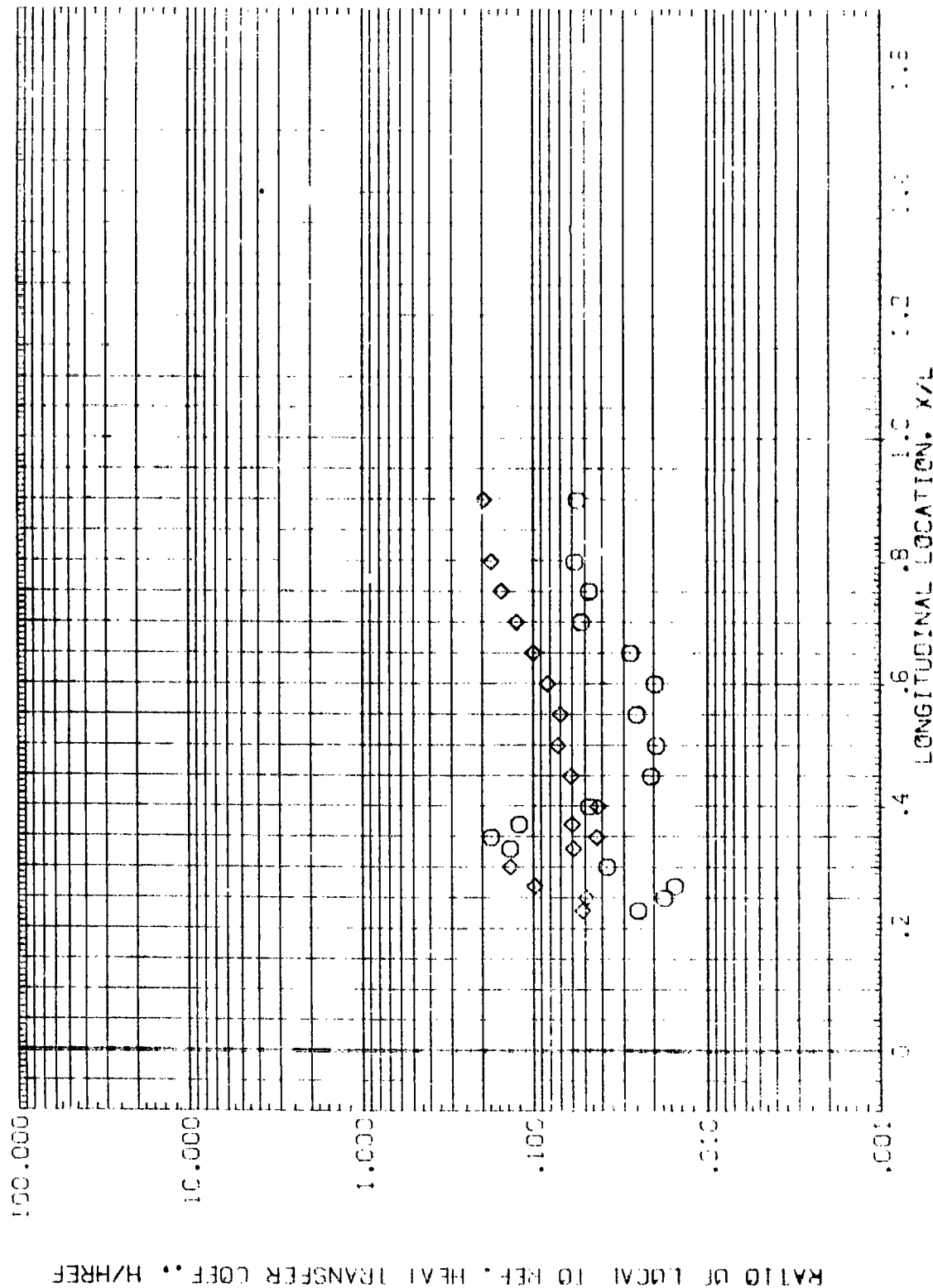


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TAN

MACH = 5.300 HAW/HREF = .900 PHI = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      R<sub>h</sub>

(R3B501)      ARC3.5-211C(IH48)OTS/NIPPLE/P/TRIP(C+S) EXT TANK      .000      .000      1.5000

(R3B502)      DATA NOT AVAILABLE      .000      .000      1.5000

(R3B503)      ARC3.5-211C(IH48)OTS/NIPPLE/P/TRIP(C+S) EXT TANK      .000      .000      5.0000

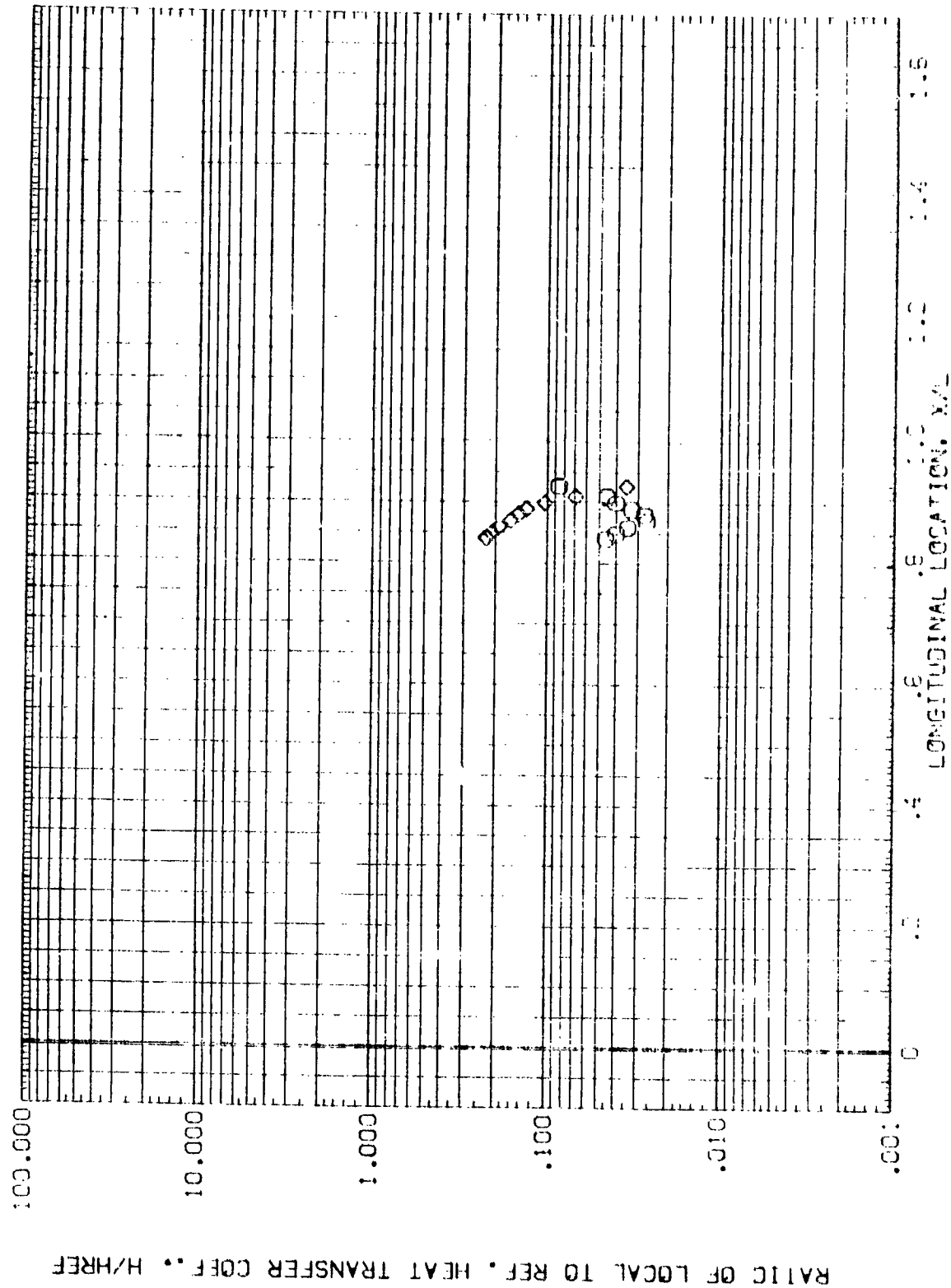


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300      HAWKITE = .900       $\mu$  = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RHSF01) APC3.5-211C(H98)OTS/NIPPLE/P/TRIP(C+S): EXT TANK  
 (RHSF02) DATA NOT AVAILABLE  
 (RHSF03) APC3.5-211C(H98)OTS/NIPPLE/P/TRIP(C+S): EXT TANK

ALPHA BETA RV/L  
 .000 .000 1.000  
 .000 .000 1.000  
 .000 .000 1.000

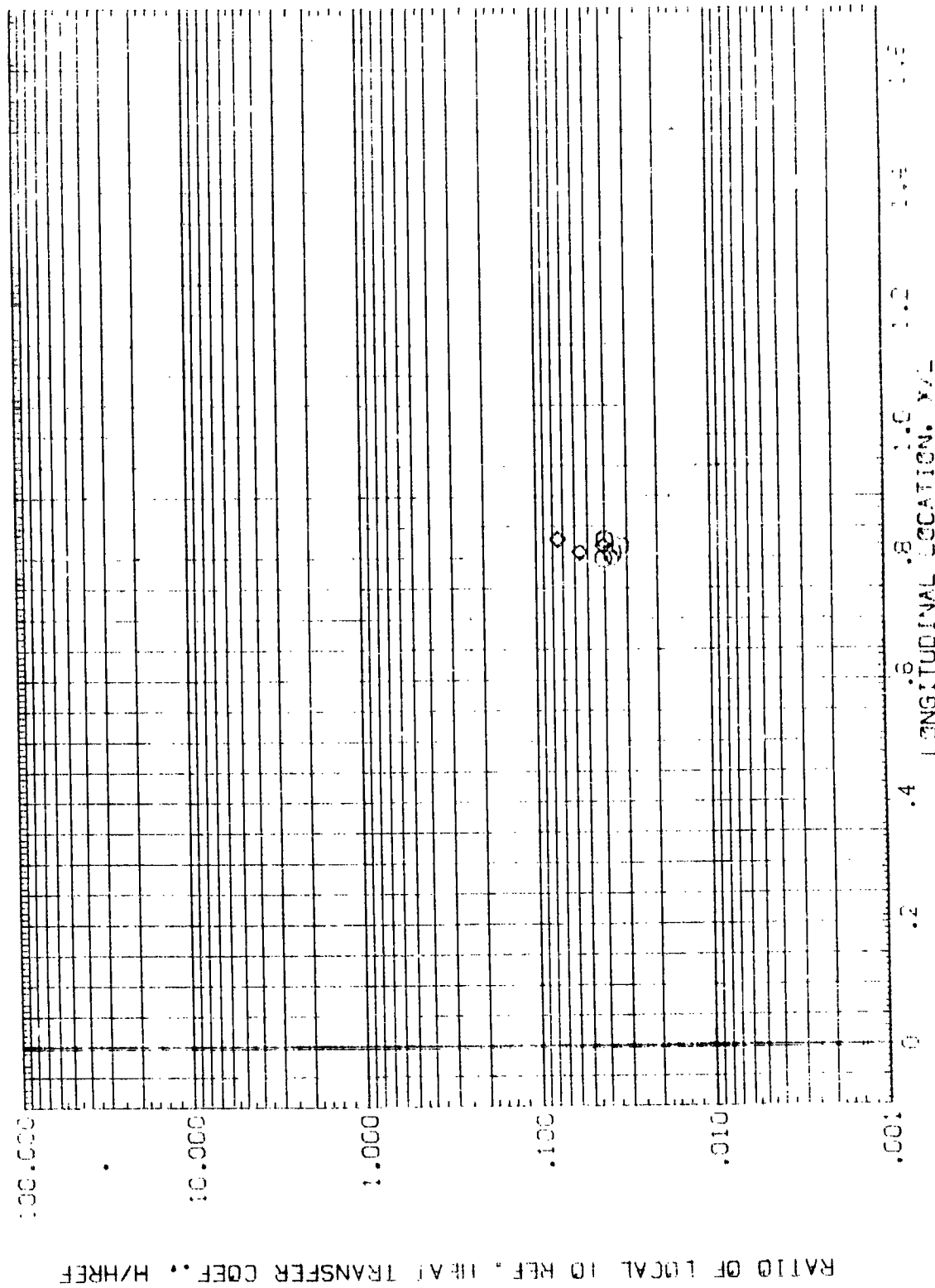


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P-I = 129.300



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFO1) (RNBFO2)

APC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
DATA NOT AVAILABLE  
APC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA BETA RAY  
.000 .000 1.500  
.000 .000 1.500  
.000 .000 5.000

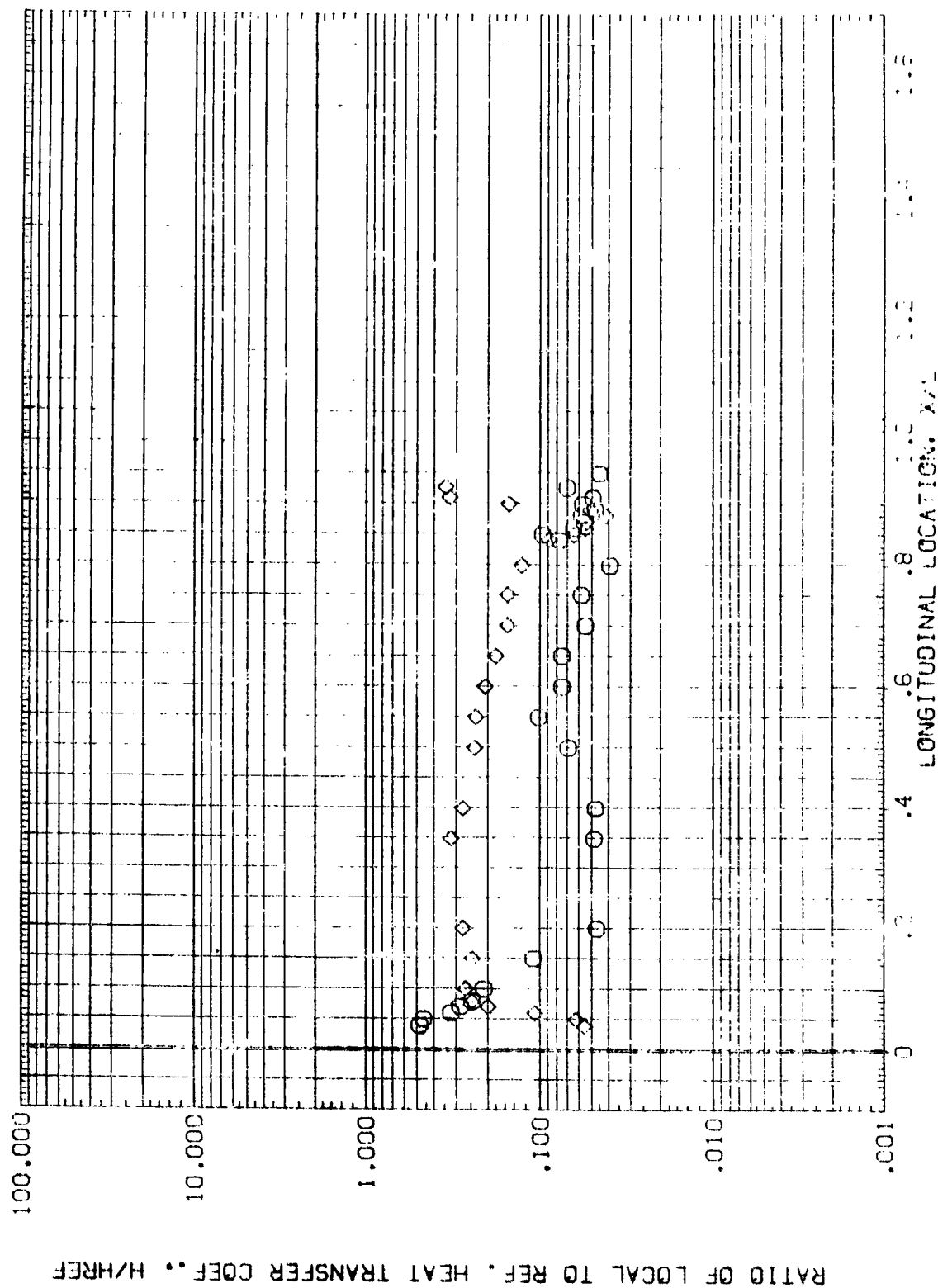


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 FRI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RMBF01)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RMBF02)    DATA NOT AVAILABLE  
 (RMBF03)    ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA    BETA    RN/L  
 .000    .000    1.500  
 .000    .000    1.500  
 .000    .000    5.300

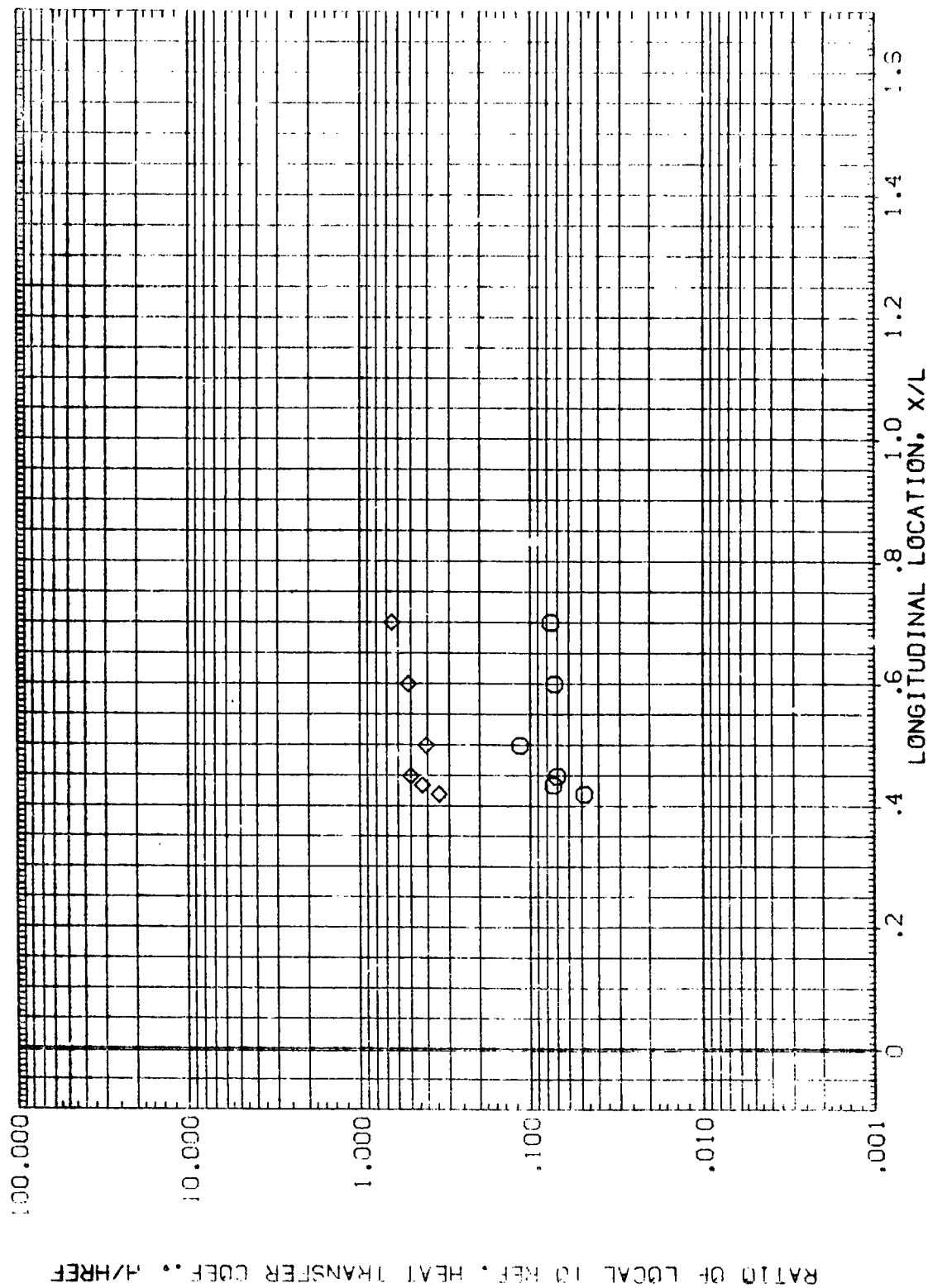


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300    hAW/HT = .900    PHI = 142.300

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNBFC1) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFC05) DATA NOT AVAILABLE  
 (RNBFC02) ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA .000  
 BETA .000  
 RN/L 1.500

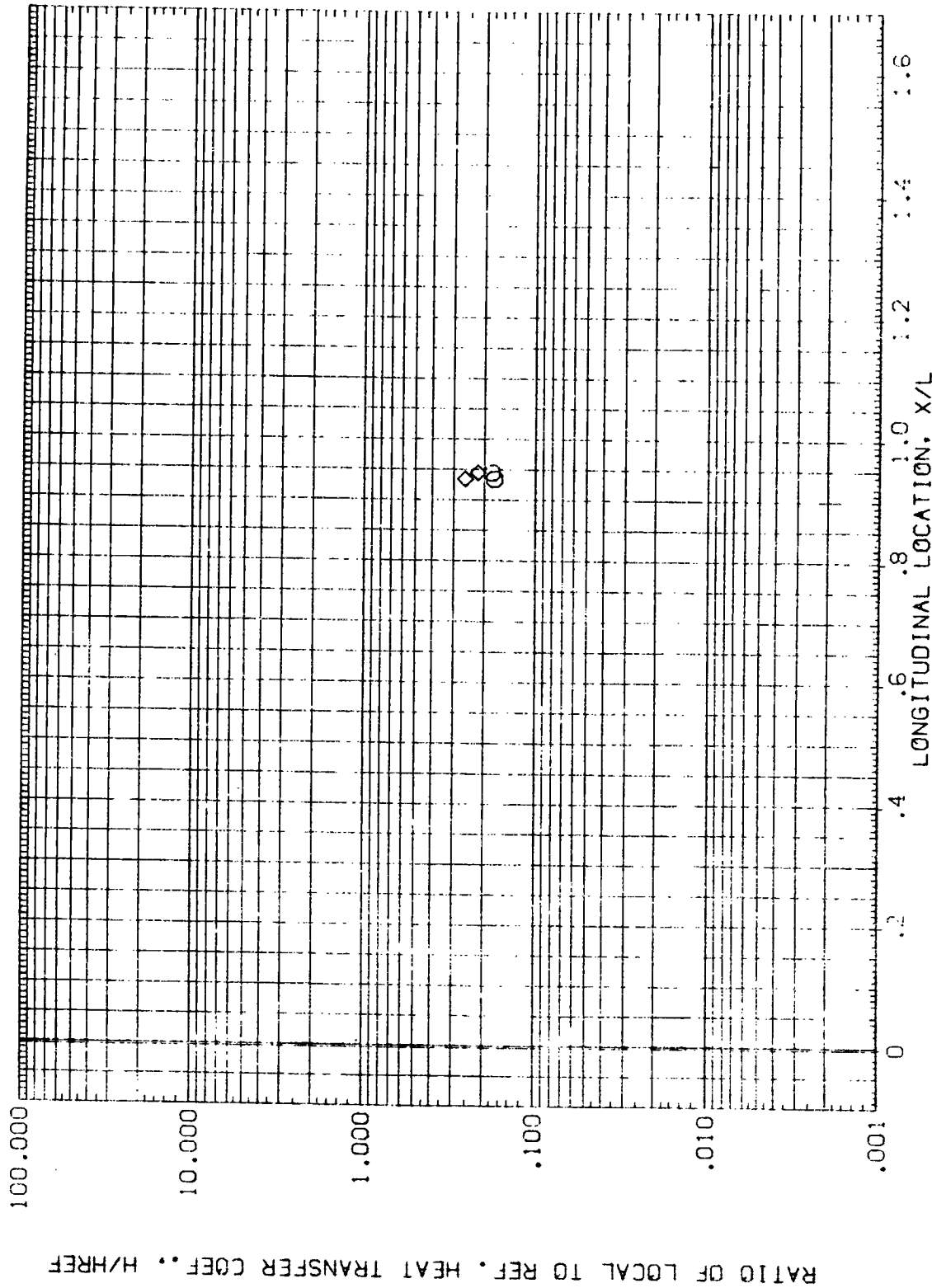


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300  $h_{AW}/h_T = .900$  PH: = 154.980

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNBFO1) ARC3.5-211(IH48JOTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFC6) DATA NOT AVAILABLE  
 (RNBFO2) ARC3.5-211(IH48JOTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA BETA RN/L  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 5.000

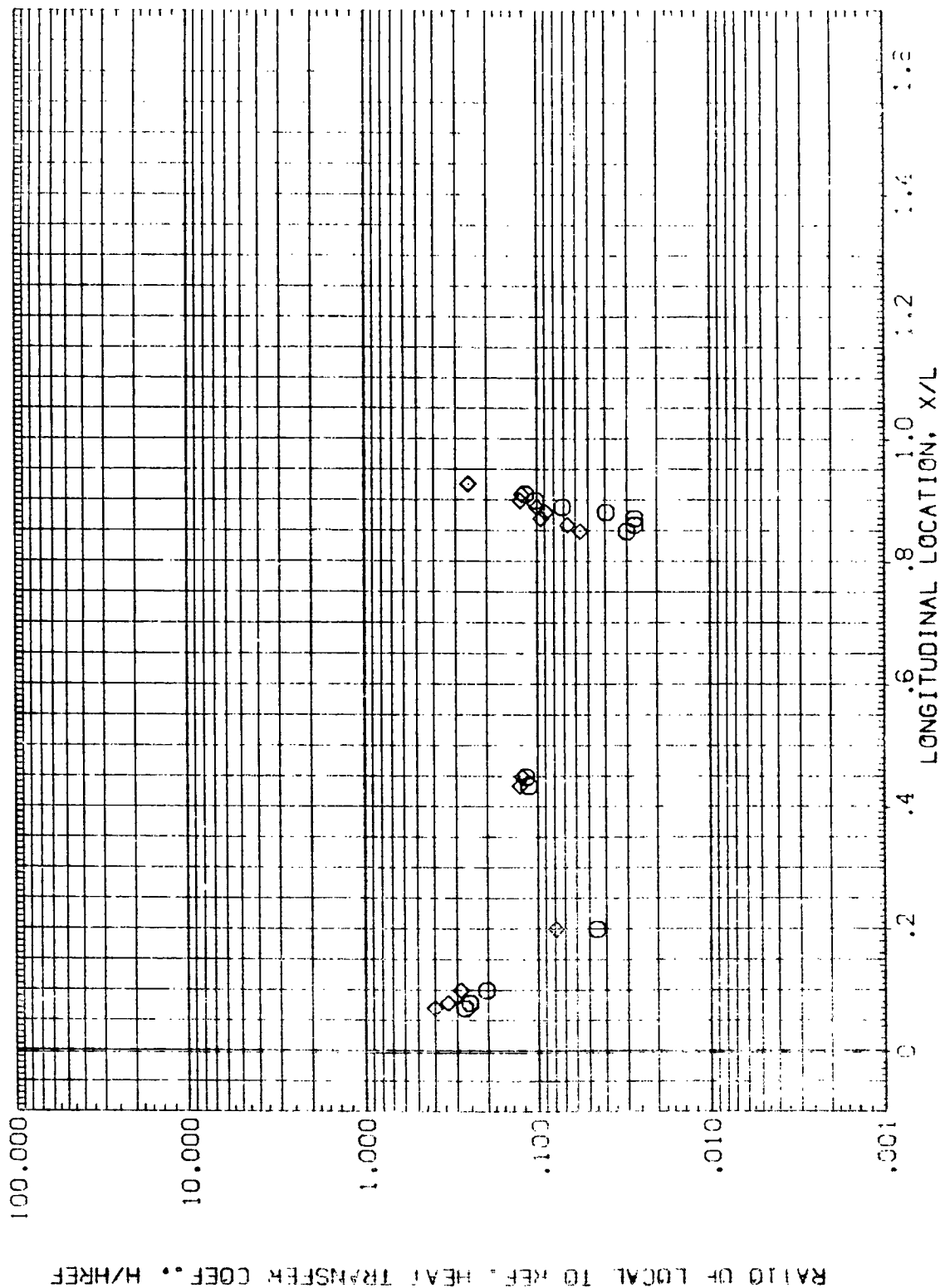


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300  $\gamma$ AW/HT = .900  $\phi$ HI = 157.500

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(RNBFO1)	○	ARC3.5-211C(H48)OTS/NIPPLE/P/TR(P(0+S) EXT TANK	.000	.000	1.500
(RNBFO5)	◇	DATA NOT AVAILABLE	.000	.000	1.500
(RNBFO2)	◇	ARC3.5-211C(H48)OTS/NIPPLE/P/TR(P(0+S) EXT TANK	.000	.000	5.000

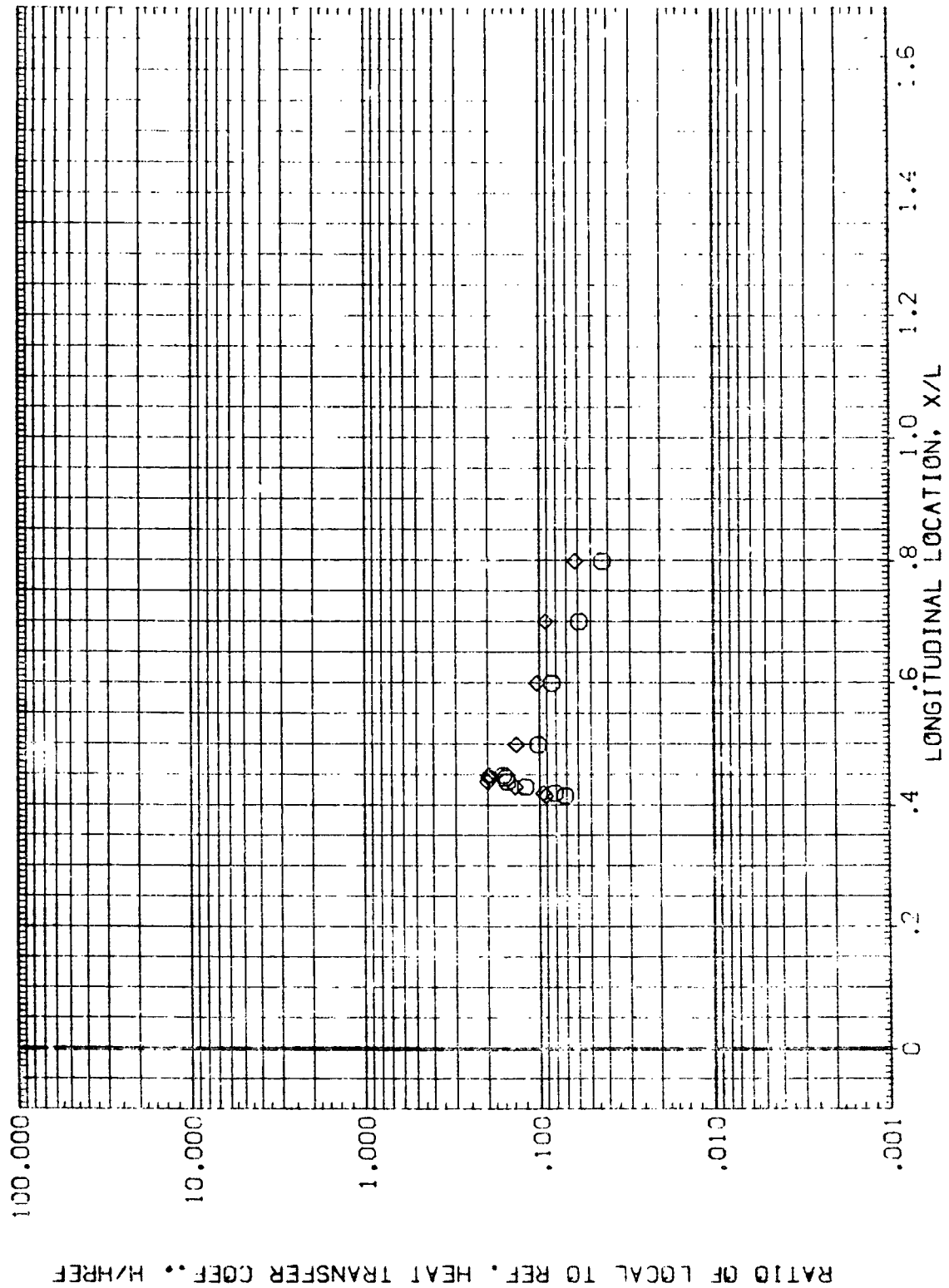


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P<sub>HI</sub> = 163.120

DATA REF SYM BOL CONFIGURATION DESCRIPTION  
 (R) REF (S) REF (T) REF (U) REF (V) REF (W) REF (X) REF (Y) REF (Z)  
 (R) REF (S) REF (T) REF (U) REF (V) REF (W) REF (X) REF (Y) REF (Z)  
 (R) REF (S) REF (T) REF (U) REF (V) REF (W) REF (X) REF (Y) REF (Z)

ALPHA, BETA RN/L  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 5.000

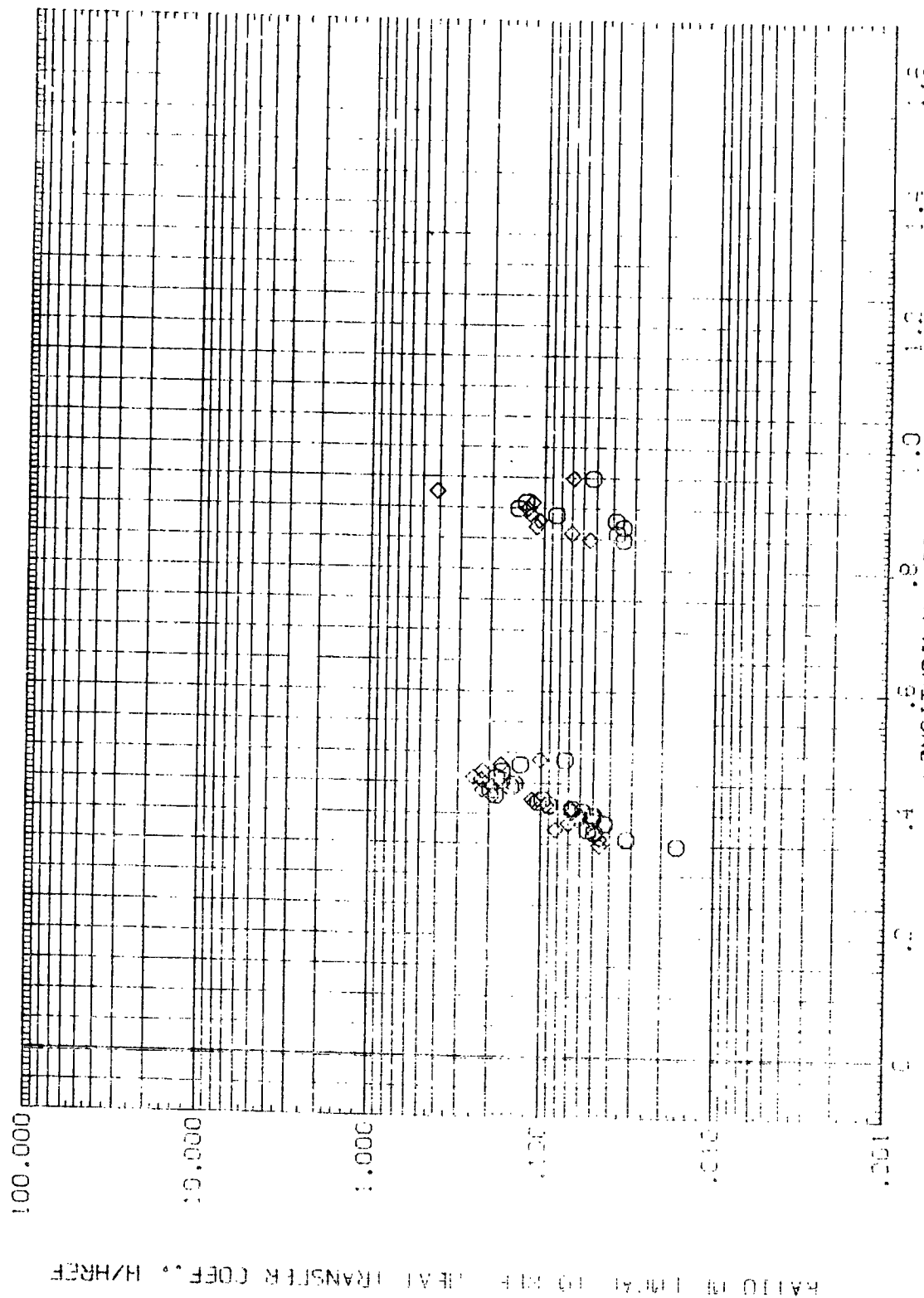





FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

WACH = 5.000 MAWATE = .000 PHI = 159.000

DATE 580

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RNB01)  (RNB05)  (RNB02) 

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA .000 .000 .000  
BETA .000 .000 .000  
RN/L 1.500 1.500 5.000

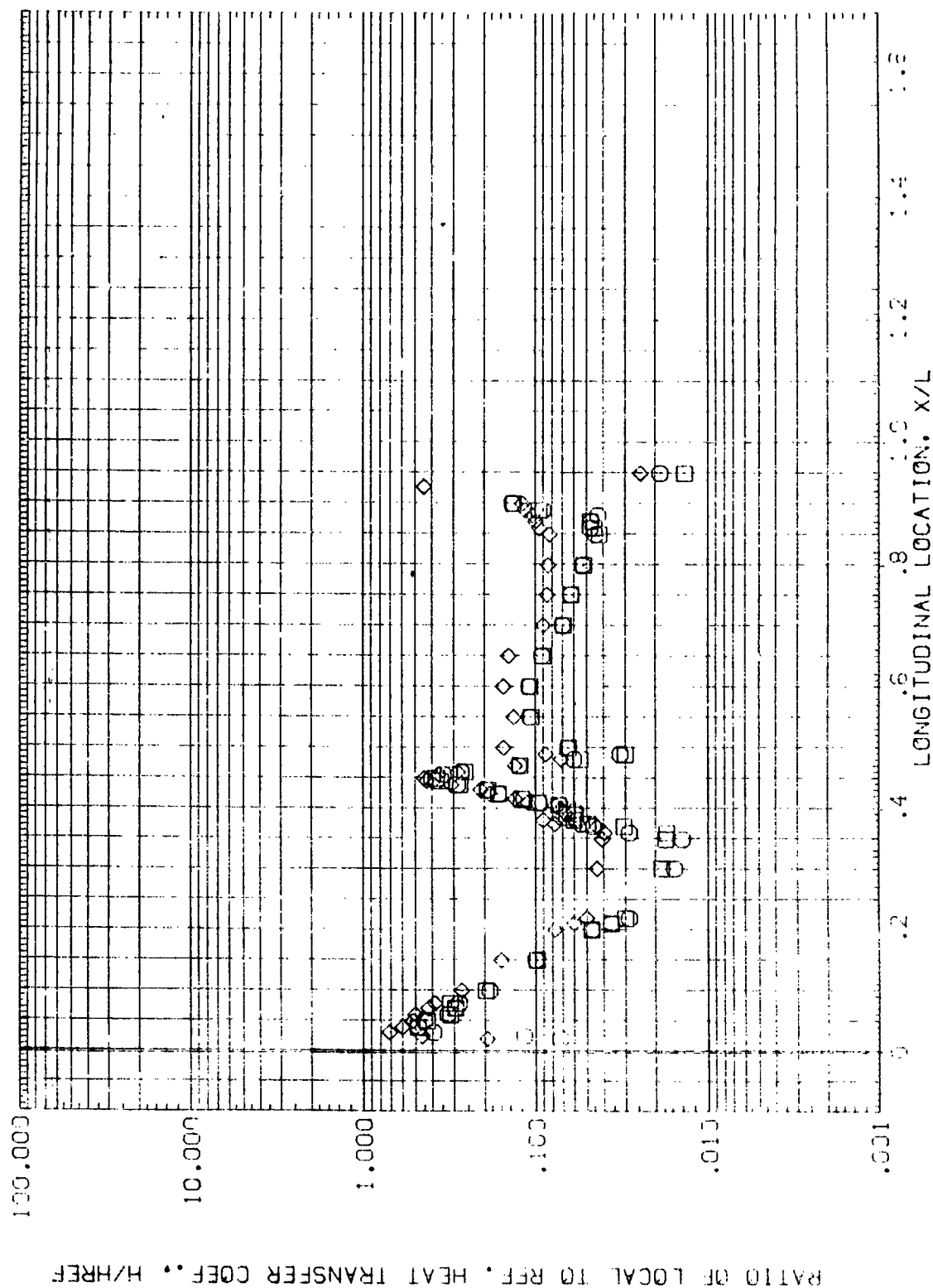


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 P41 = 180.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (RNBFC1)      ARC3.5-2111(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFC6)      ARC3.5-2111(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RNBFC2)      ARC3.5-2111(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA      BETA      RN/L  
 .000      .000      1.500  
 .000      .000      1.500  
 .000      .000      5.000

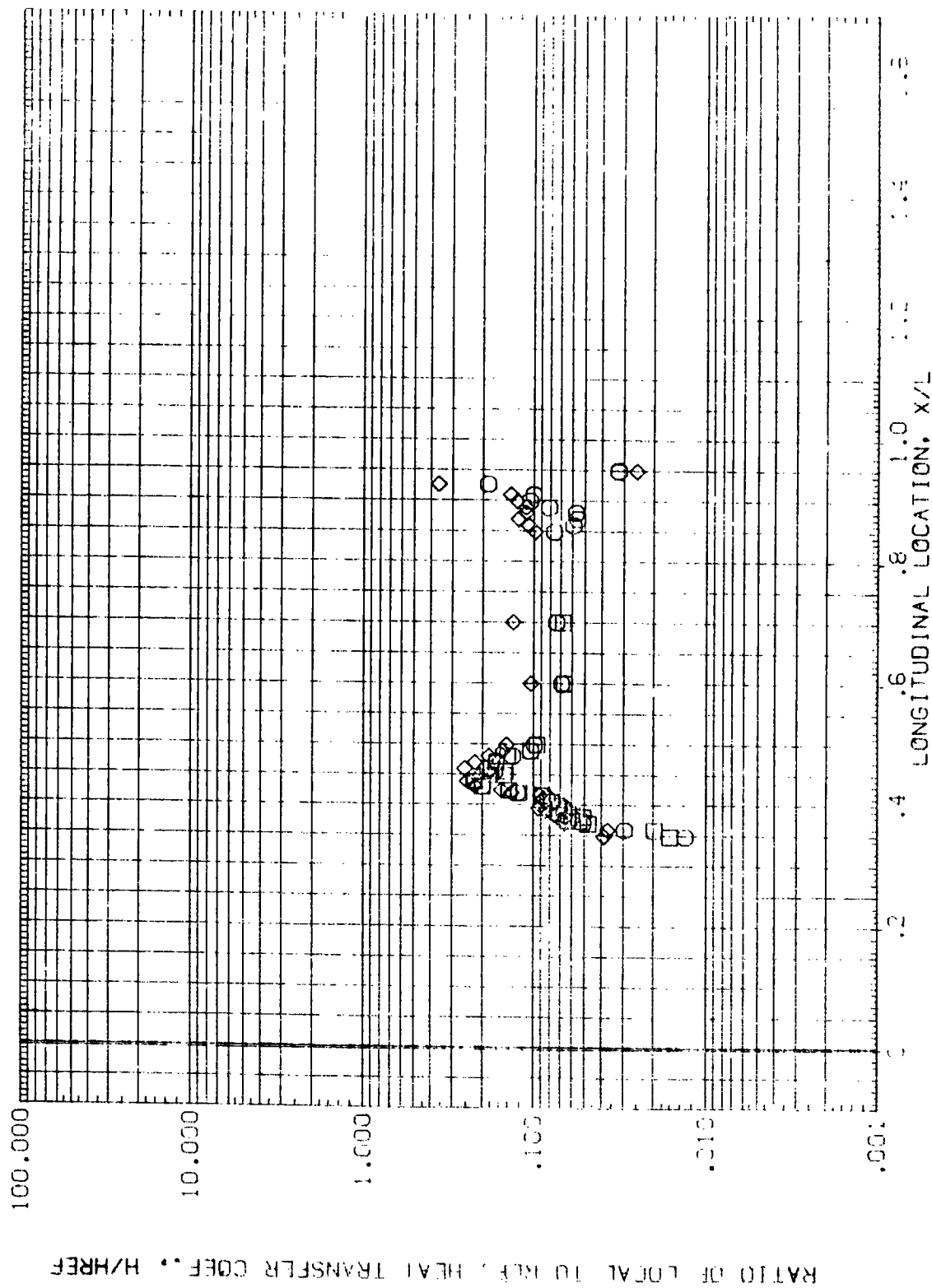


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300      DAWGATE = .900      CH = 131.250



# DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RABFC1) ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK  
 (RABFC2) DATA NOT AVAILABLE  
 (RABFC3) ARC3-S-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

ALPHA BETA R<sub>N/L</sub>  
 .000 .000 1.500  
 .000 .000 1.500  
 .000 .000 5.000

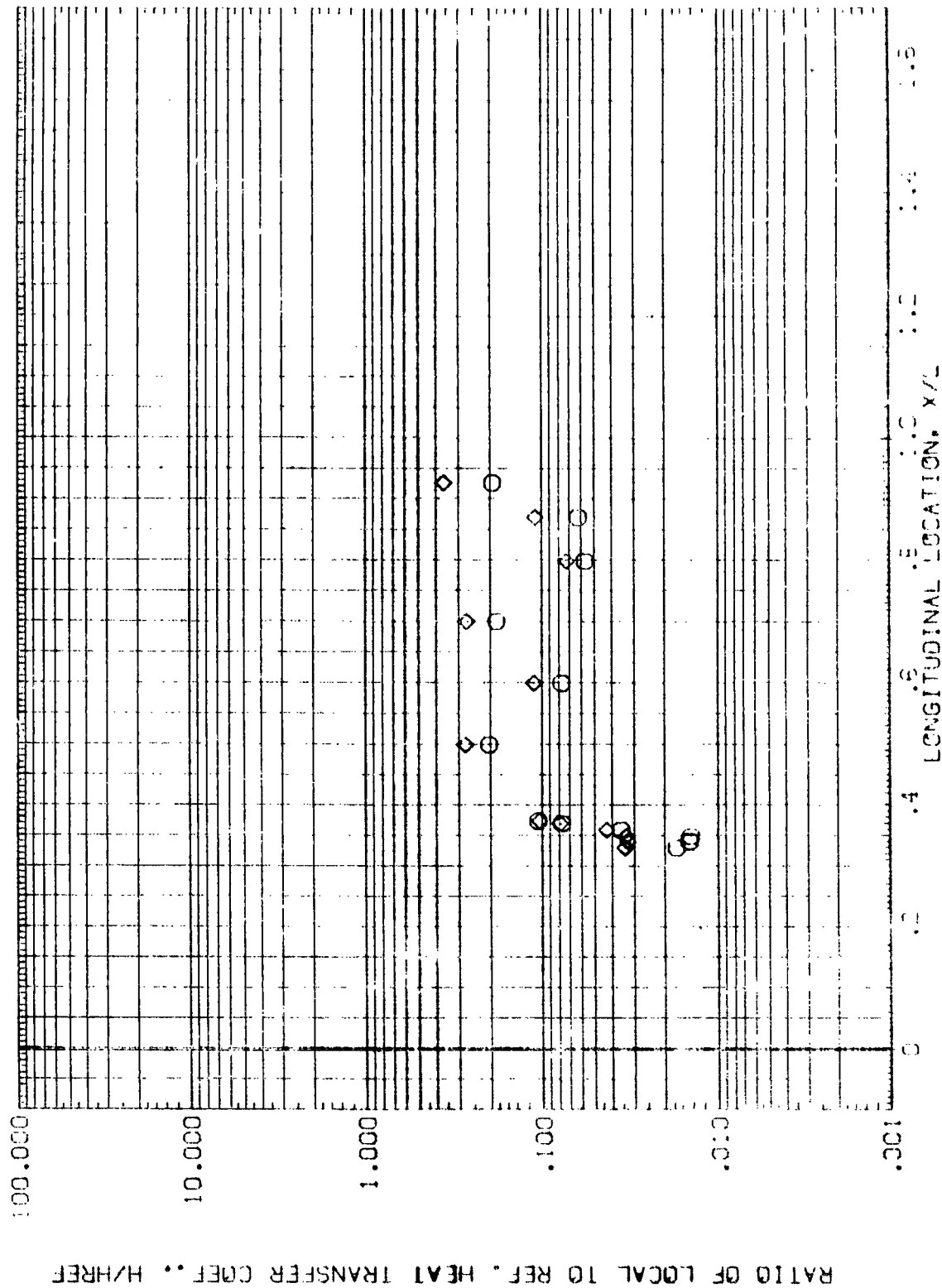


FIG. 1: EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 H<sub>AW</sub>/H<sub>T</sub> = .900 PHI = .97.000

DATA SET SIMSOL CONFIGURATION DESCRIPTION ALPHA BETA RN:L

(RNF01) ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK .000 1.500

(RNF02) DATA NOT AVAILABLE .000 1.500

(RNF03) ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK .000 5.000

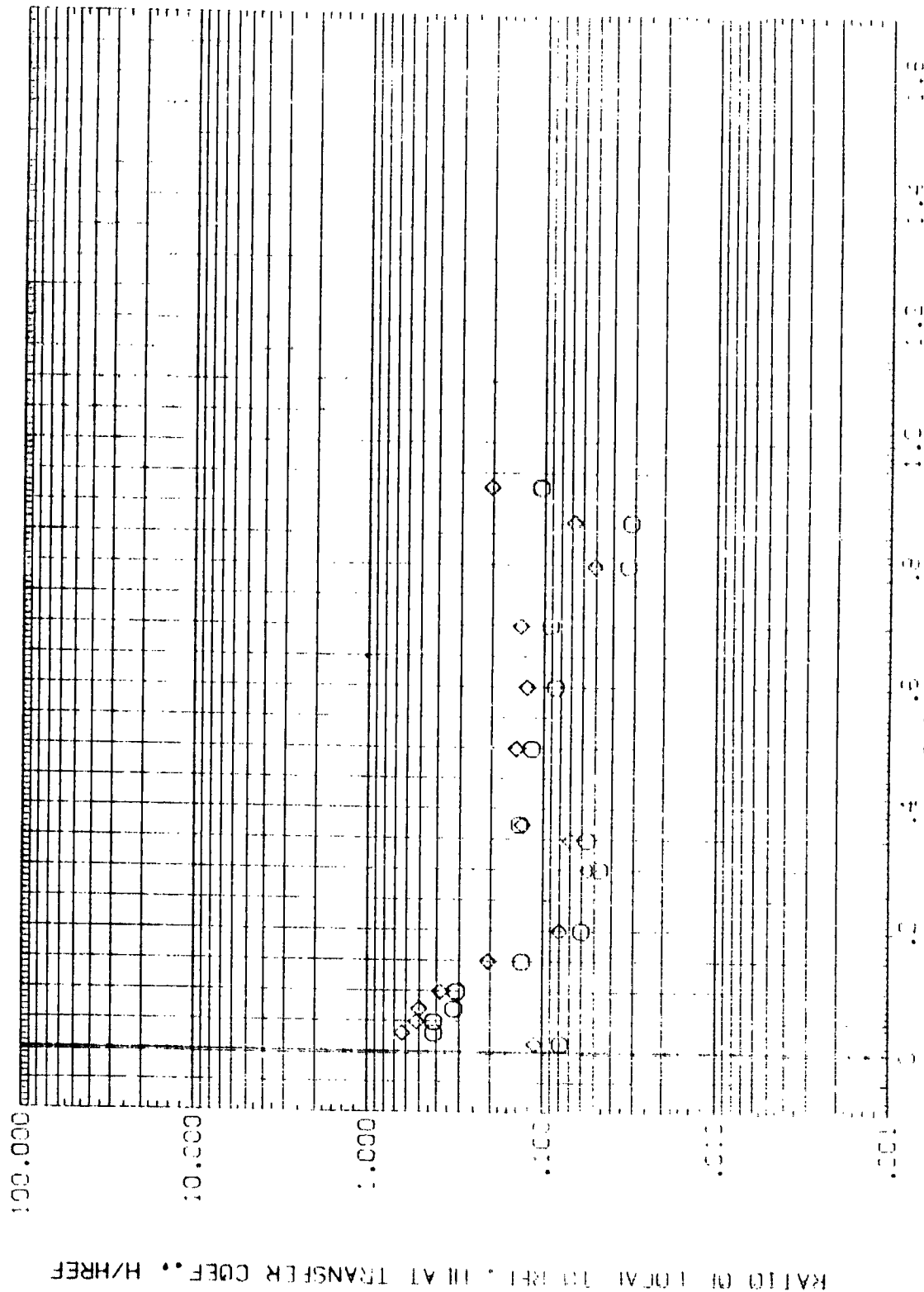


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

WACH = 5.300 H/WACH = .800 P-W = 209.810

5-12 582

DATA SET SYMB. CONFIGURATION DESCRIPTION ALPHA BETA RY  
 (R3501) ARC3.5-211C(H48)JTS/NIPPLE/P/TR(PD-S) EXT TANK .000 .000 1.500  
 (R3502) DATA NOT AVAILABLE .000 .000 1.500  
 (R3503) ARC3.5-211C(H48)JTS/NIPPLE/P/TR(PD-S) EXT TANK .000 .000 1.500  
 (R3504) .000 .000 1.500

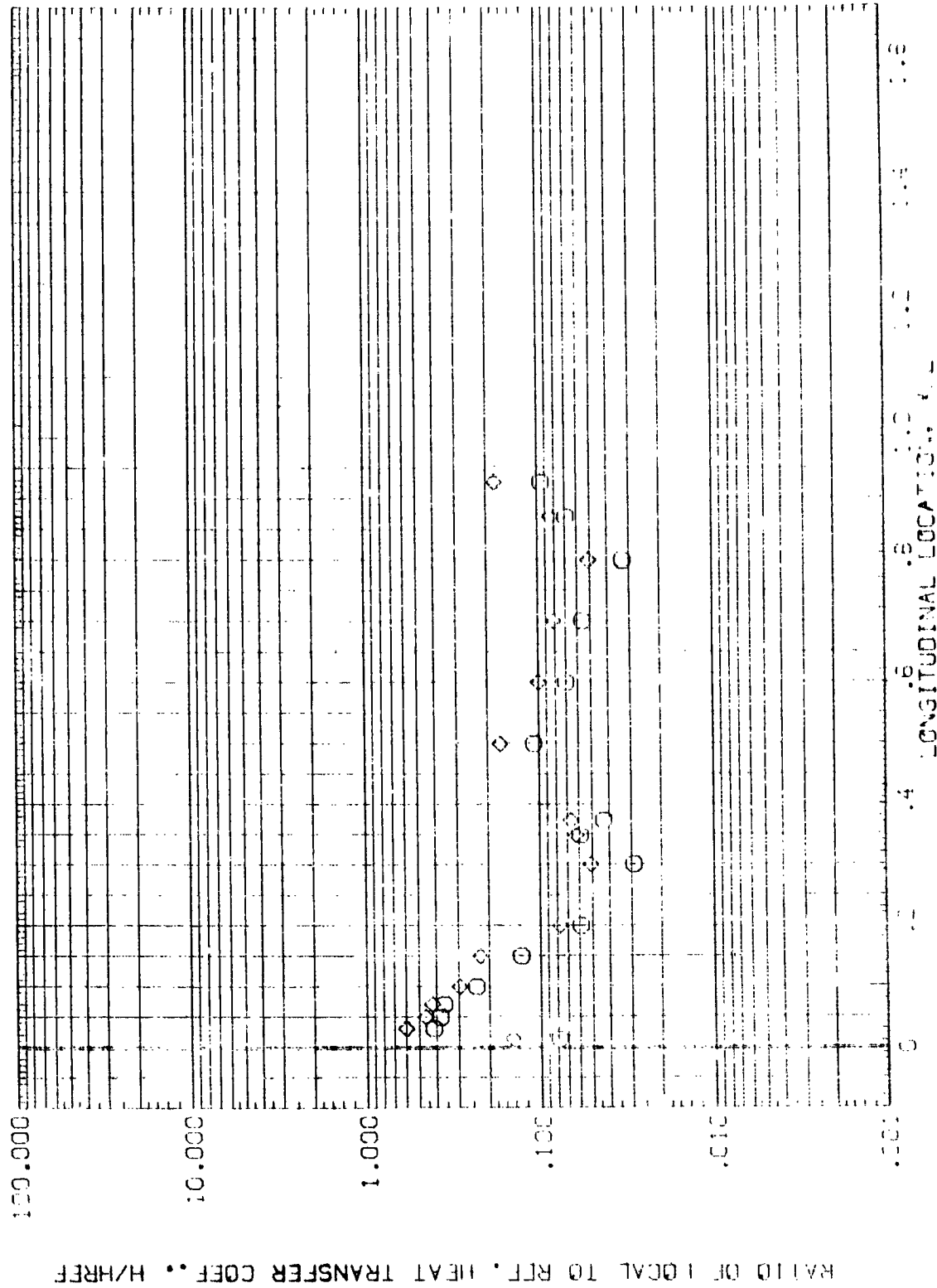


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 H/W/HREF = .900 RY = 217.700

DATA SET SYMBOL: CONFIGURATION DESCRIPTION  
 (RNF16) ARC3.5-211C(H48)JET /NIPPLE/CLEAN  
 (RNF17) ARC3.5-211C(H48)JET /NIPPLE/CLEAN

EXT TANK EXT TANK  
 ALPHA BETA RATIO  
 .000 .000 1.500  
 .000 .000 5.000

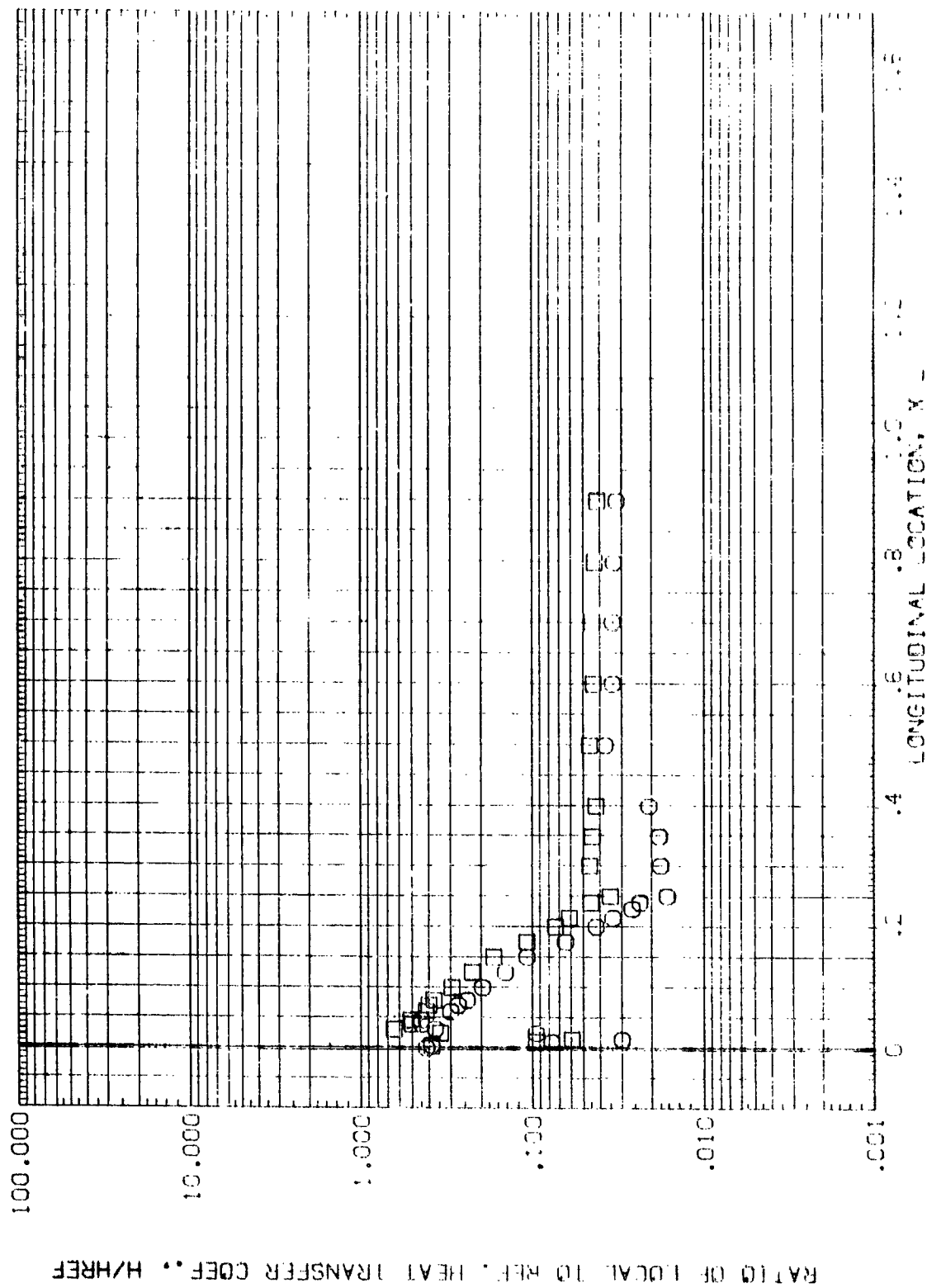


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAWKETE = .900 P-H = .000

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (P)3E161 ARC3.5-211C148JET /NIPPLE/CLEAN  
 (R)3E17 ARC3.5-211C148JET /NIPPLE/CLEAN

ALPHA BETA  
 .000 .000  
 .000 .000

EXT TANK  
 EXT TANK

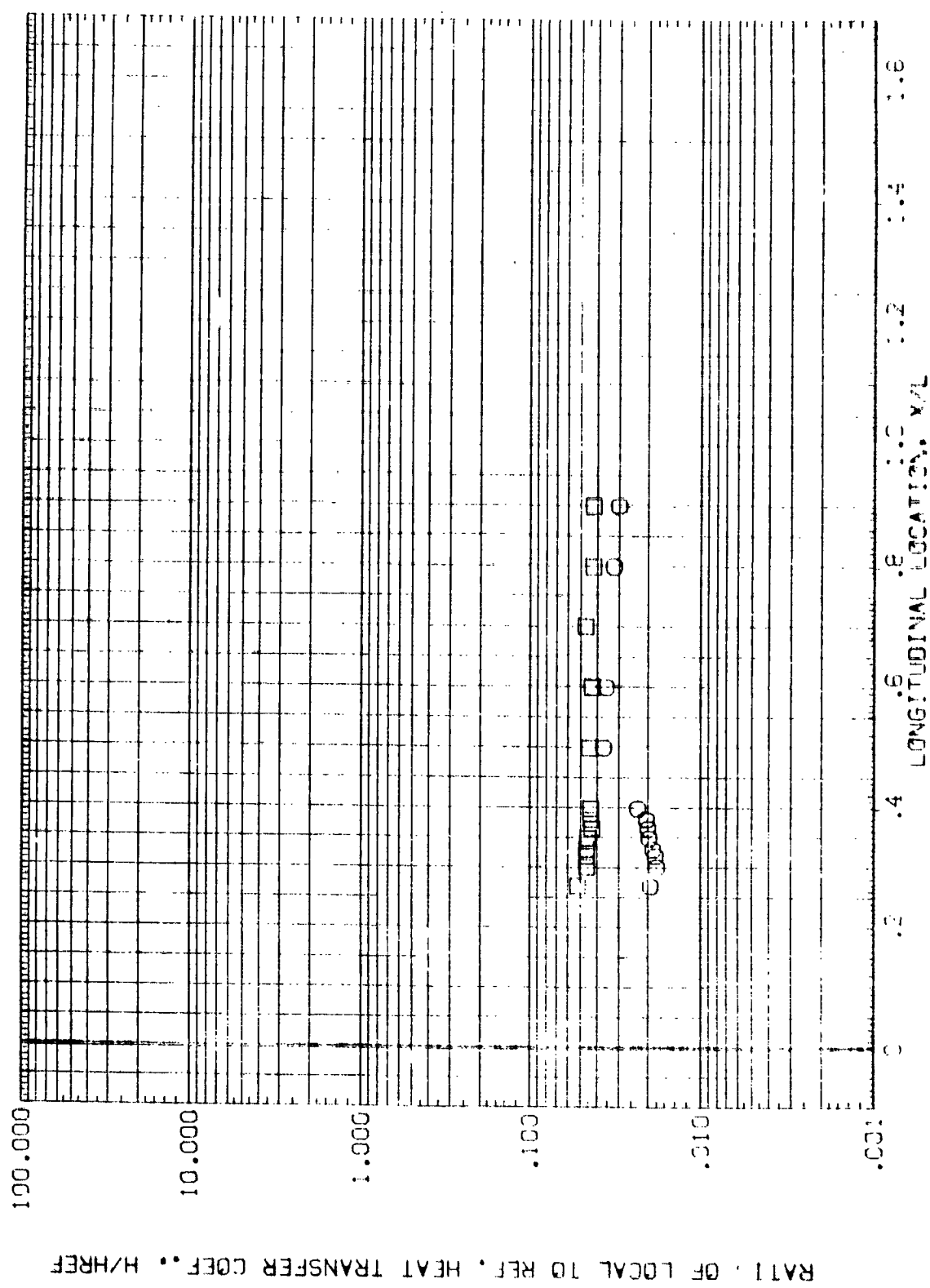


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

WACH = 5.300 - WACH = .900 PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    Rm/L

ARC3.5-211(148)ET /NIPPLE/CLEAN

EXT TANK

.000

5.000

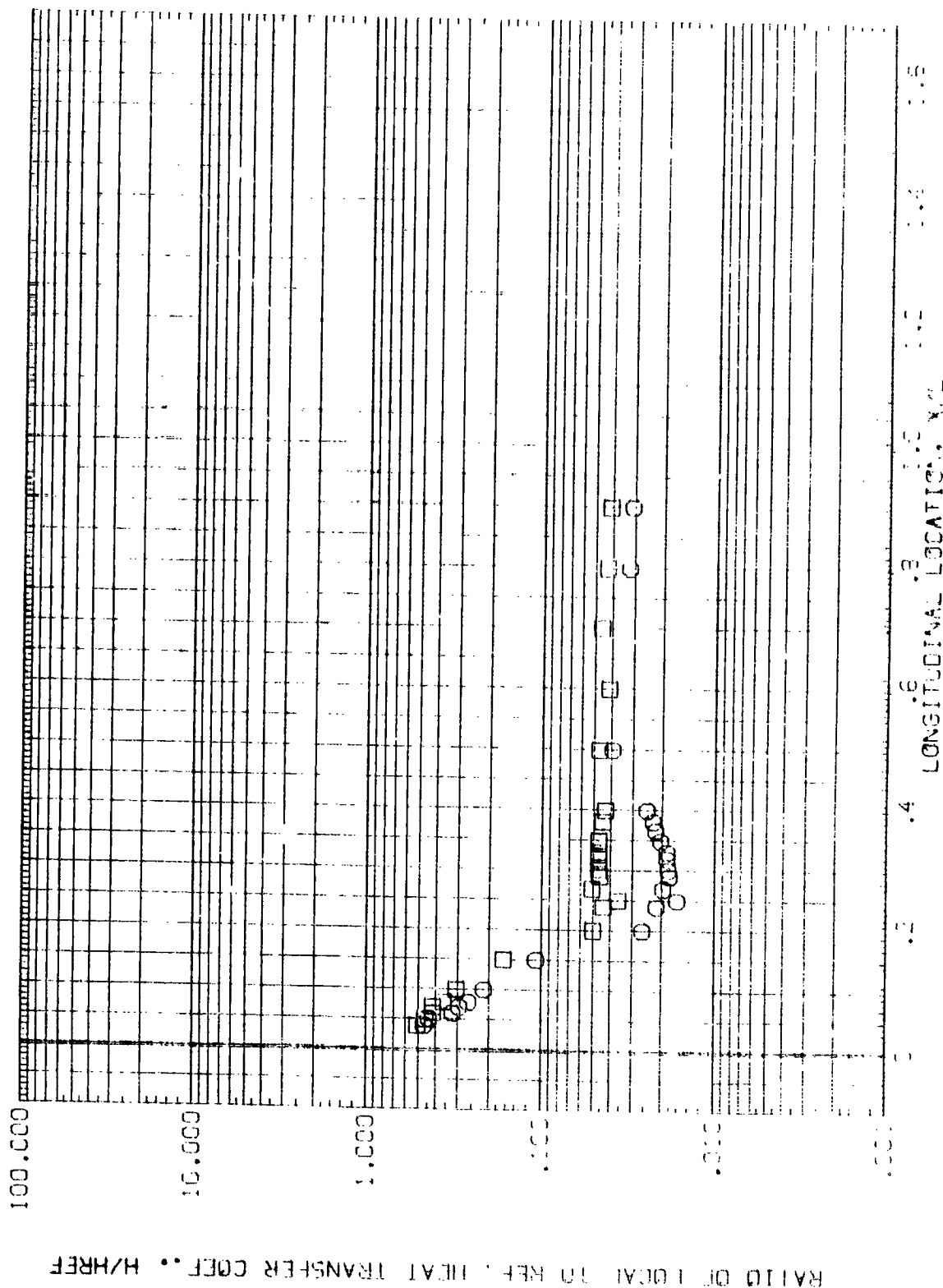


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.000    HAWKITE = .000    FRI = 0.0000

0.000    0.000

DATA SET SIM33- CONFIGURATION DESCRIPTION  
 (R)ESULT: [ ] 4800 5-21111481ET /NIPPLE/CLEAN  
 (P)RINT: [ ] 4800 5-21111481ET /NIPPLE/CLEAN

EXT TANK  
 EXT TANK

BETA

R/L  
 1.500  
 5.000

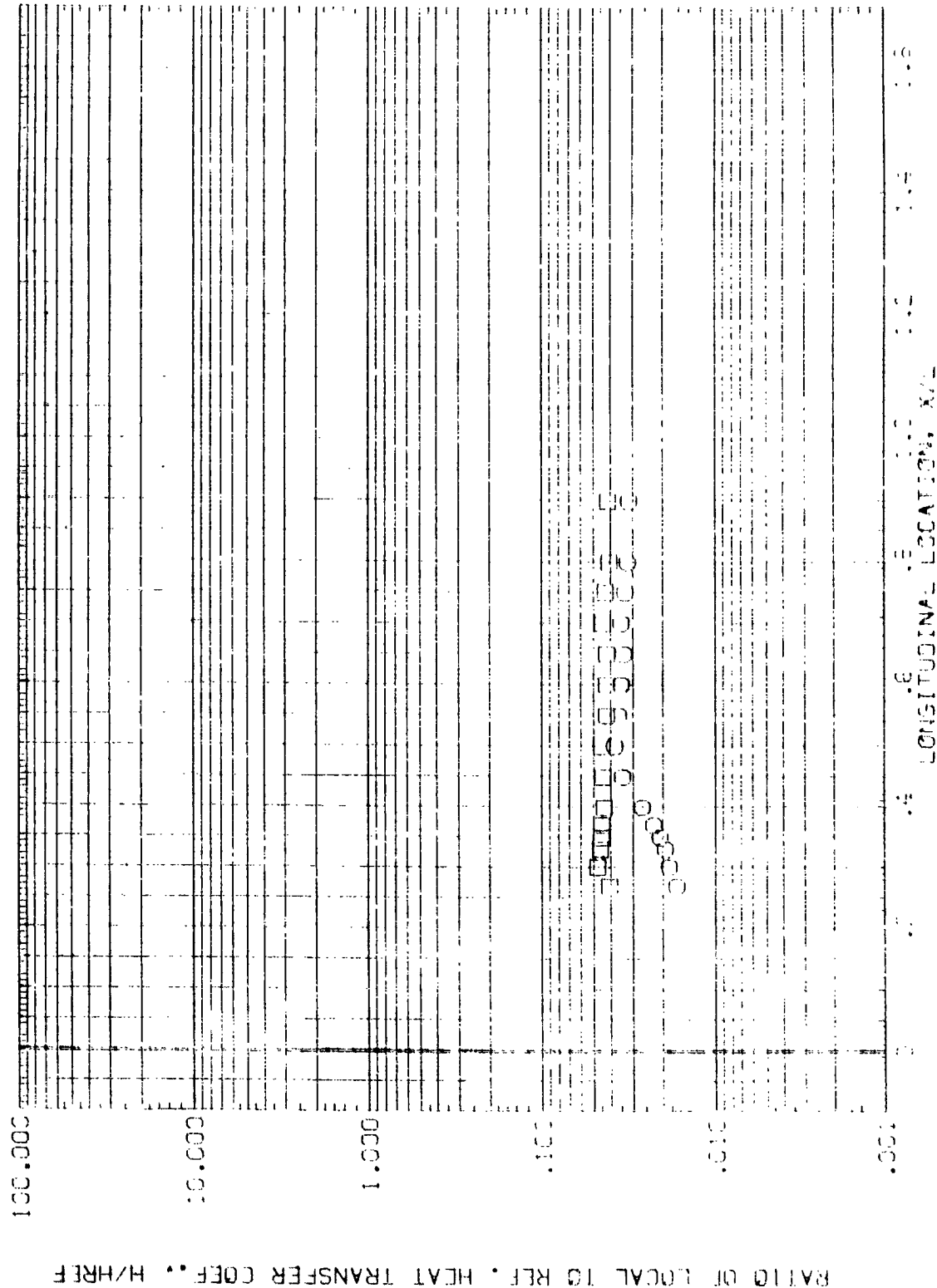


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 REYNOLDS = 1.000 PHOT = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RM/L  
 (RNBFI6)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      1.500  
 (RNBFI7)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

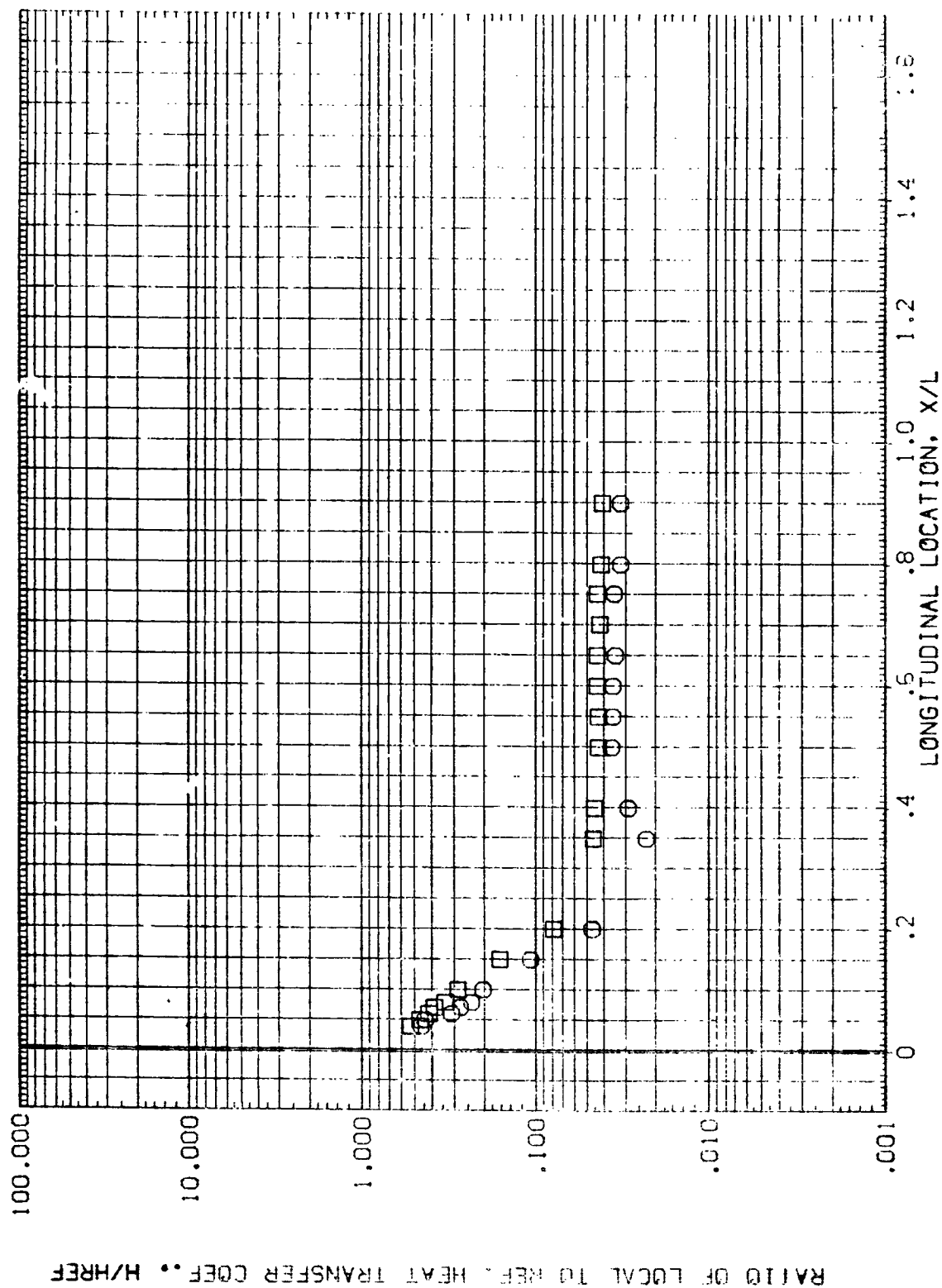


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 135.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RIBF15)

DATA NOT AVAILABLE

ARC3.5-211((H48)ET /NIPPLE/CLEAN

EXT TANK

ALPHA .000 .000

BETA .000 .000

RN/L

1.500

5.000

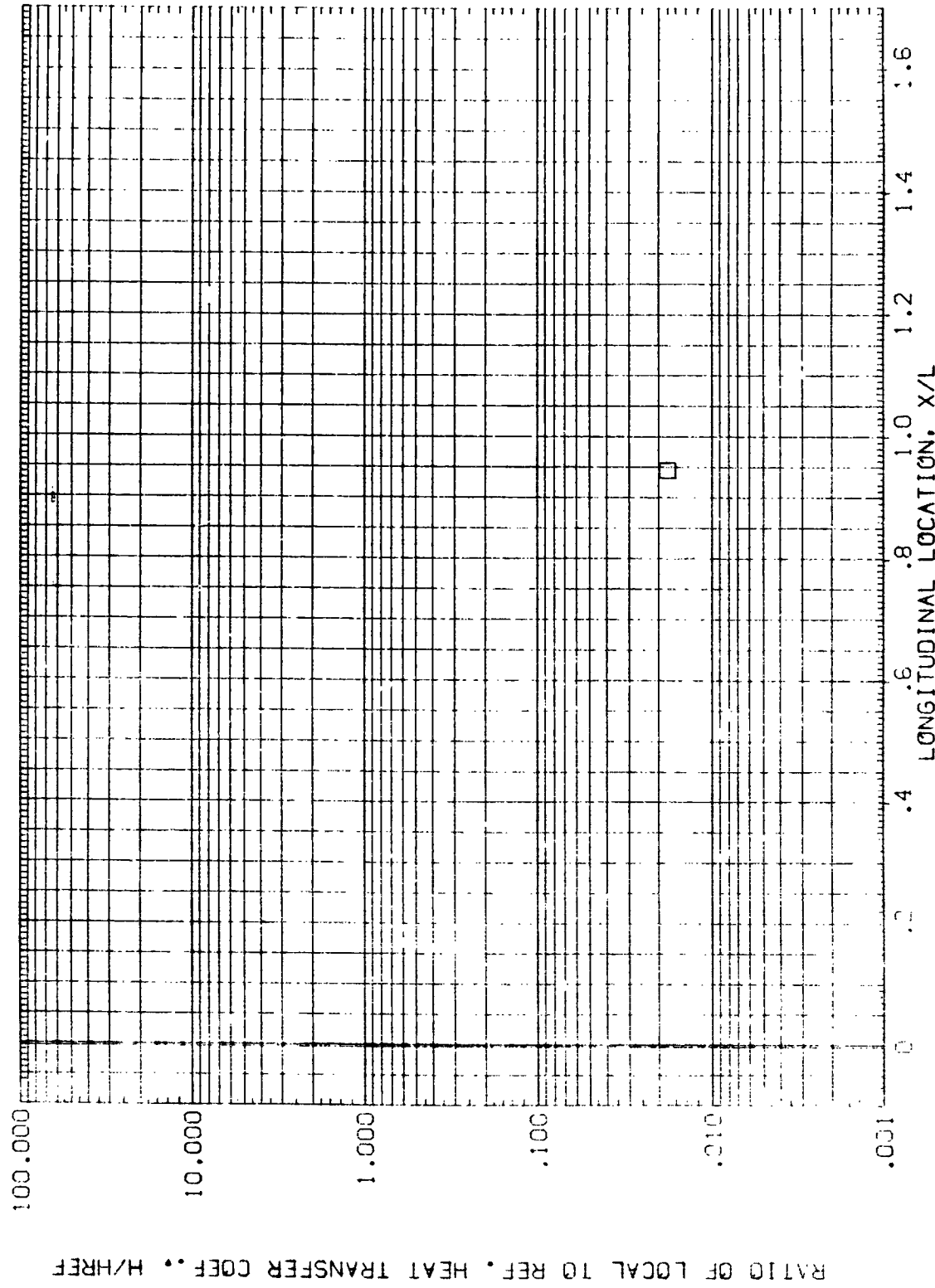


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RV/L  
 (RNBFI6) ARC3.5-211C(IH48)ET /NIPPLE/CLEAN .000 .000 1.500  
 (RNBFI7) ARC3.5-211C(IH48)ET /NIPPLE/CLEAN .000 .000 5.000

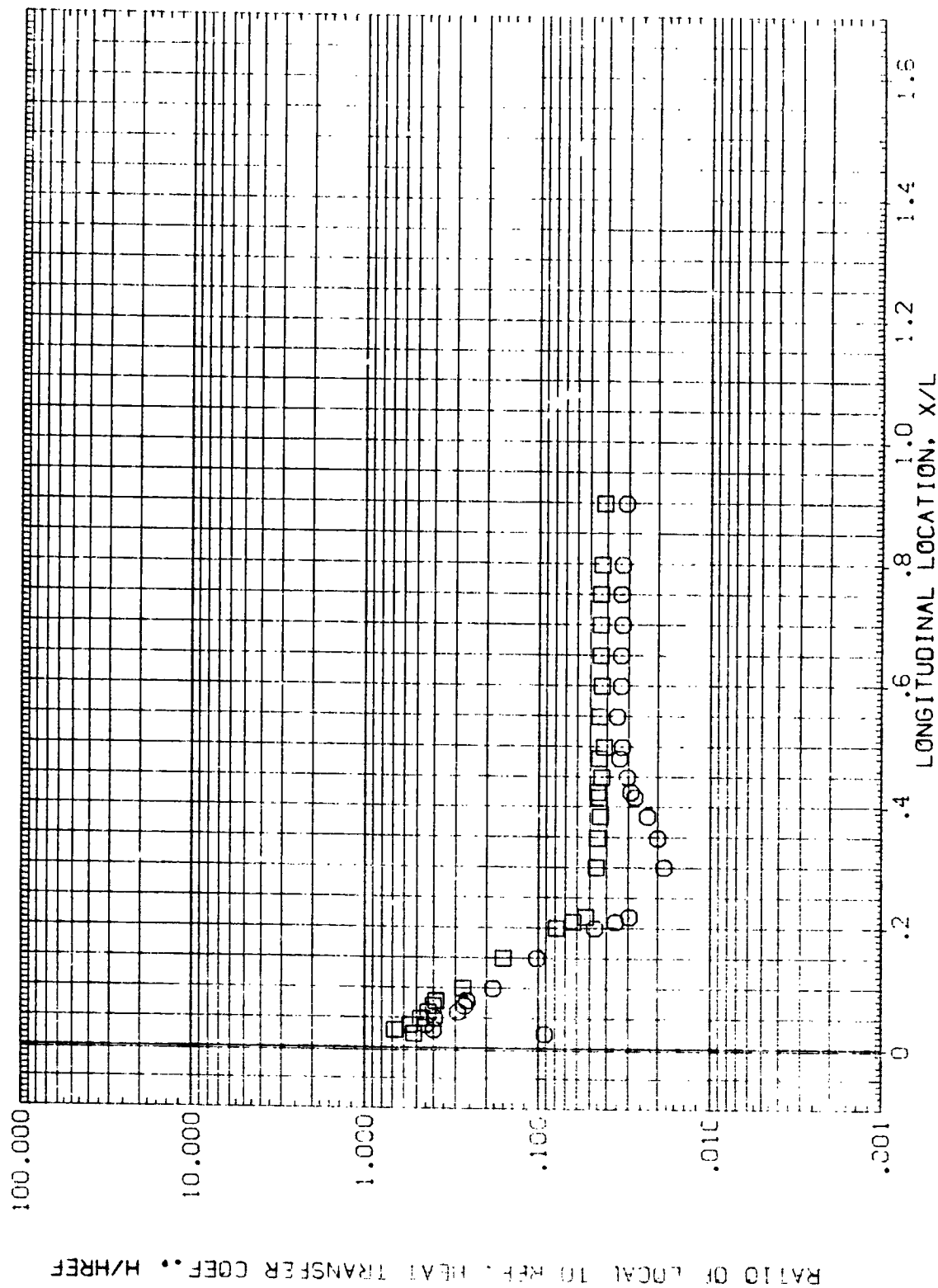


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 180.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RPNB17) 8 ARC3.5-2111(H48)ET /NIPPLE/CLEAN  
 (RPNB17) 8 ARC3.5-2111(H48)ET /NIPPLE/CLEAN

EXT TANK EXT TANK  
 ALPHA .000 .000  
 BETA .000 .000  
 RN/L 1.500 5.000

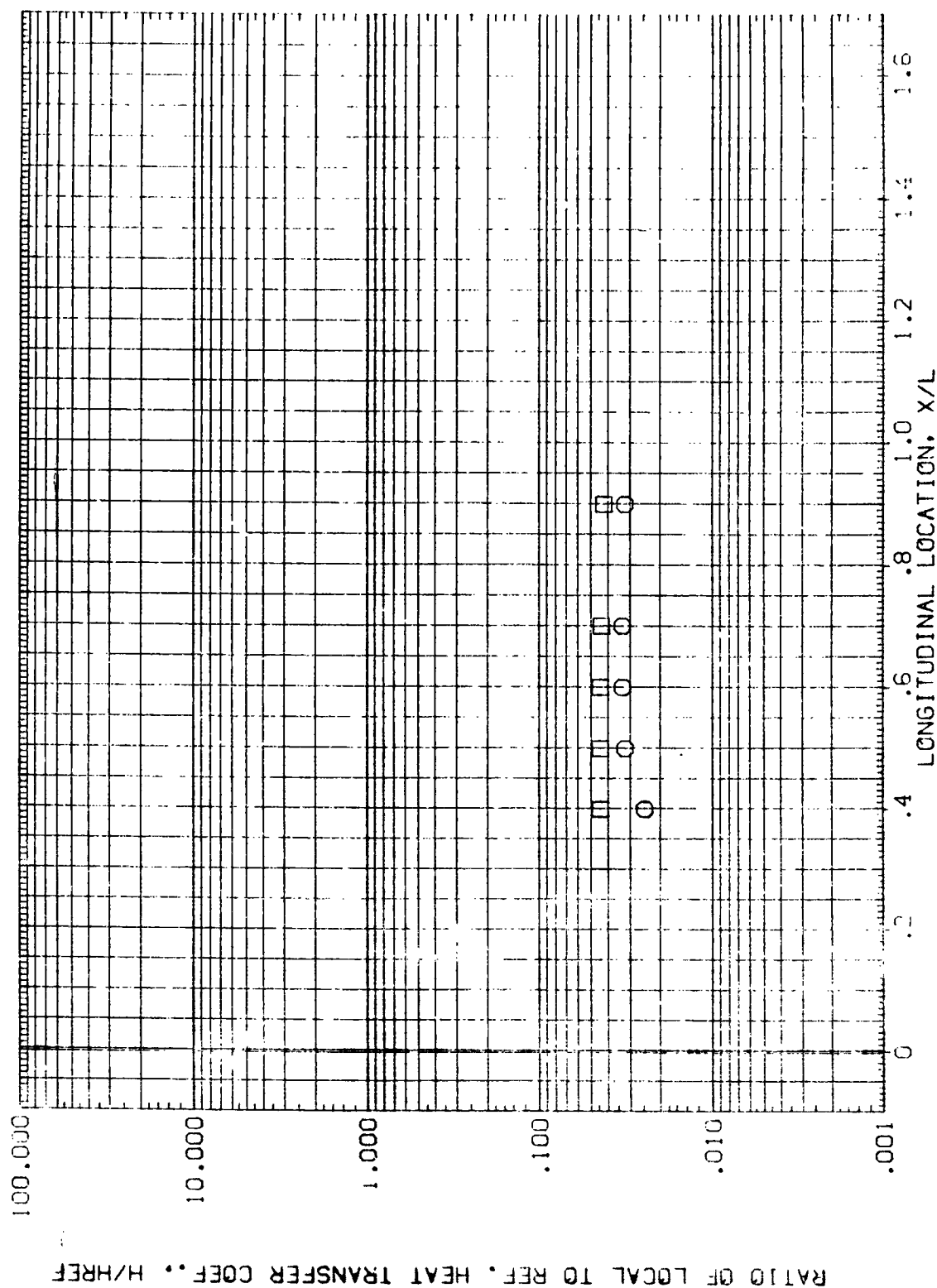


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 191.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RMBF16) ARC3.5-211(IH48)JET /NIPPLE/CLEAN  
 (RMBF17) ARC3.5-211(IH48)JET /NIPPLE/CLEAN

ALPHA BETA RN/L  
 .000 .000 1.500  
 .000 .000 5.000

EXT TANK  
 EXT TANK

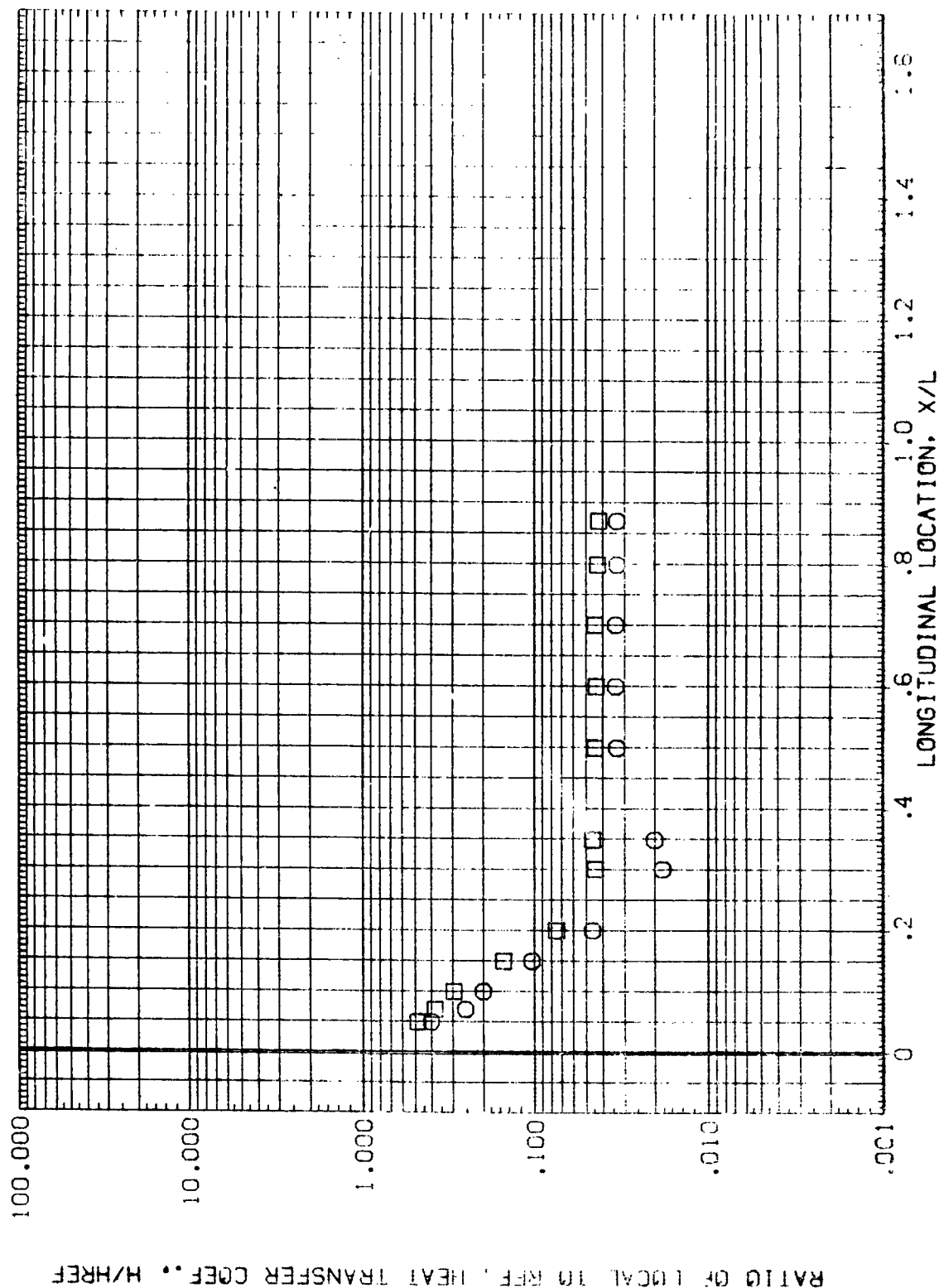


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB523) ARC3.5-2111(1448)ET /OGIVE /CLEAN  
 (RNB523) ARC3.5-2111(1448)ET /OGIVE /CLEAN

ALPHA .000  
 BETA .000  
 RN/L 1.500  
 5.000

EXT TANK  
 EXT TANK

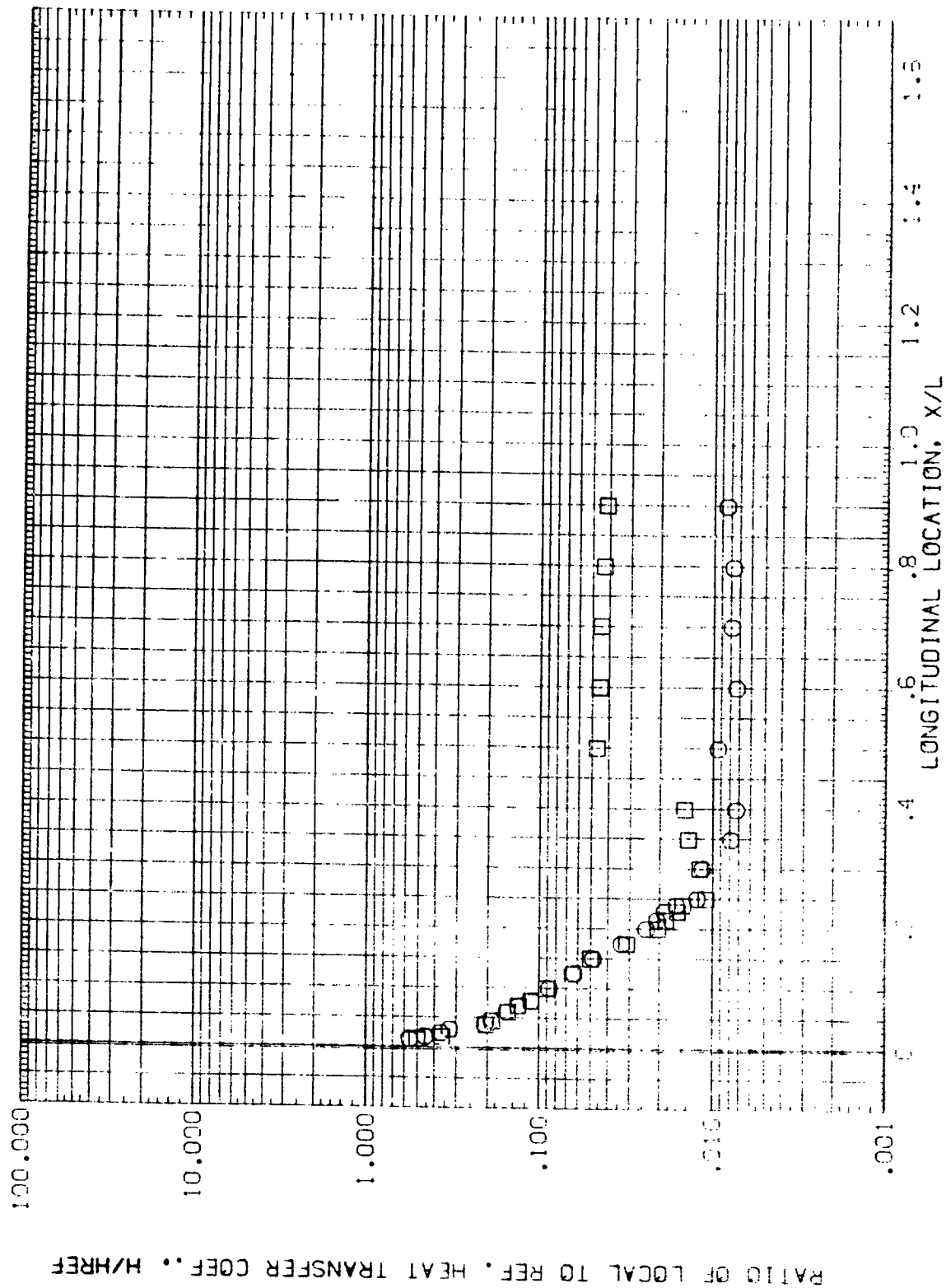


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.000 HAW/HT = .000 PH = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNB23)    ARC3.5-211(IH48)ET /OGIVE /CLEAN    .000    .000    1.500  
 (RNB20)    ARC3.5-211(IH48)ET /OGIVE /CLEAN    .000    .000    5.000

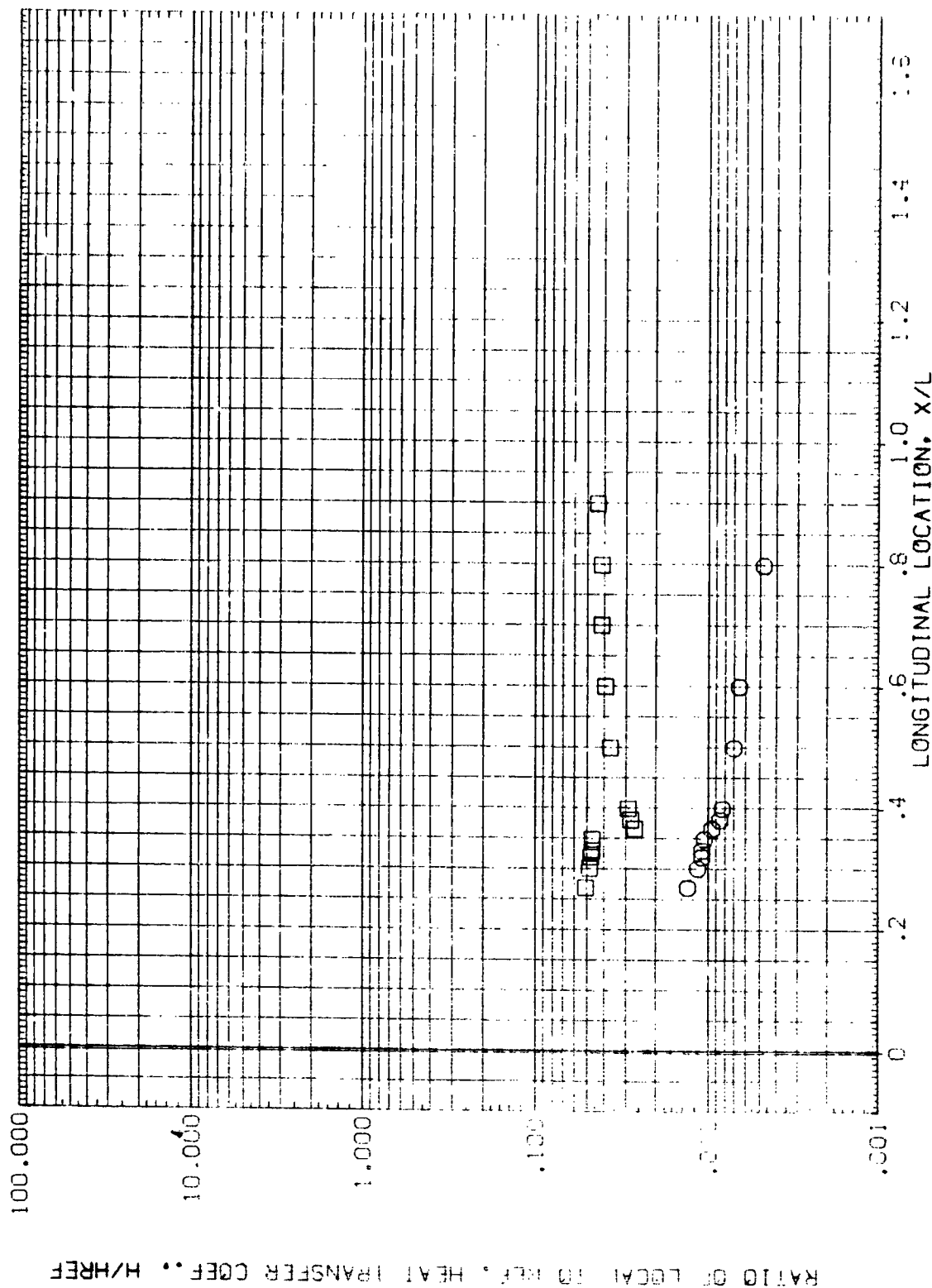


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300    HAW/H<sub>T</sub> = .900    PHI = 67.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB/20) ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (RNB/20) ARC3.5-211(IH48)ET /OGIVE /CLEAN

EXT TANK EXT TANK  
 ALPHA .000 .000  
 BETA .000 .000  
 RV/L 1.500 5.000

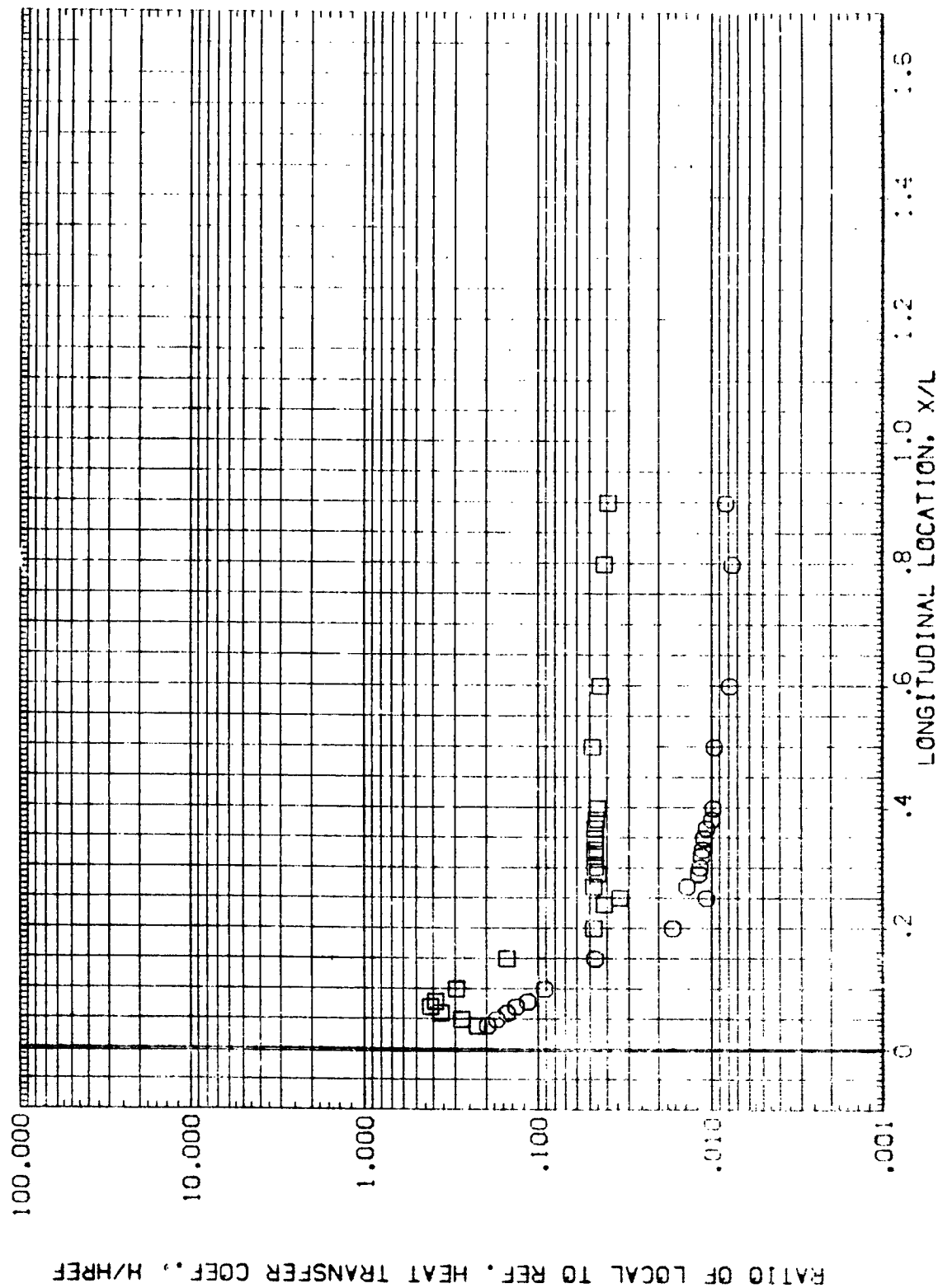


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HA\*/HT = .900 PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNB23)      ARC3.5-211(IH48)ET /OGIVE /CLEAN      .000      .000      1.500  
 (RNB20)      ARC3.5-211(IH48)ET /OGIVE /CLEAN      .000      .000      5.000

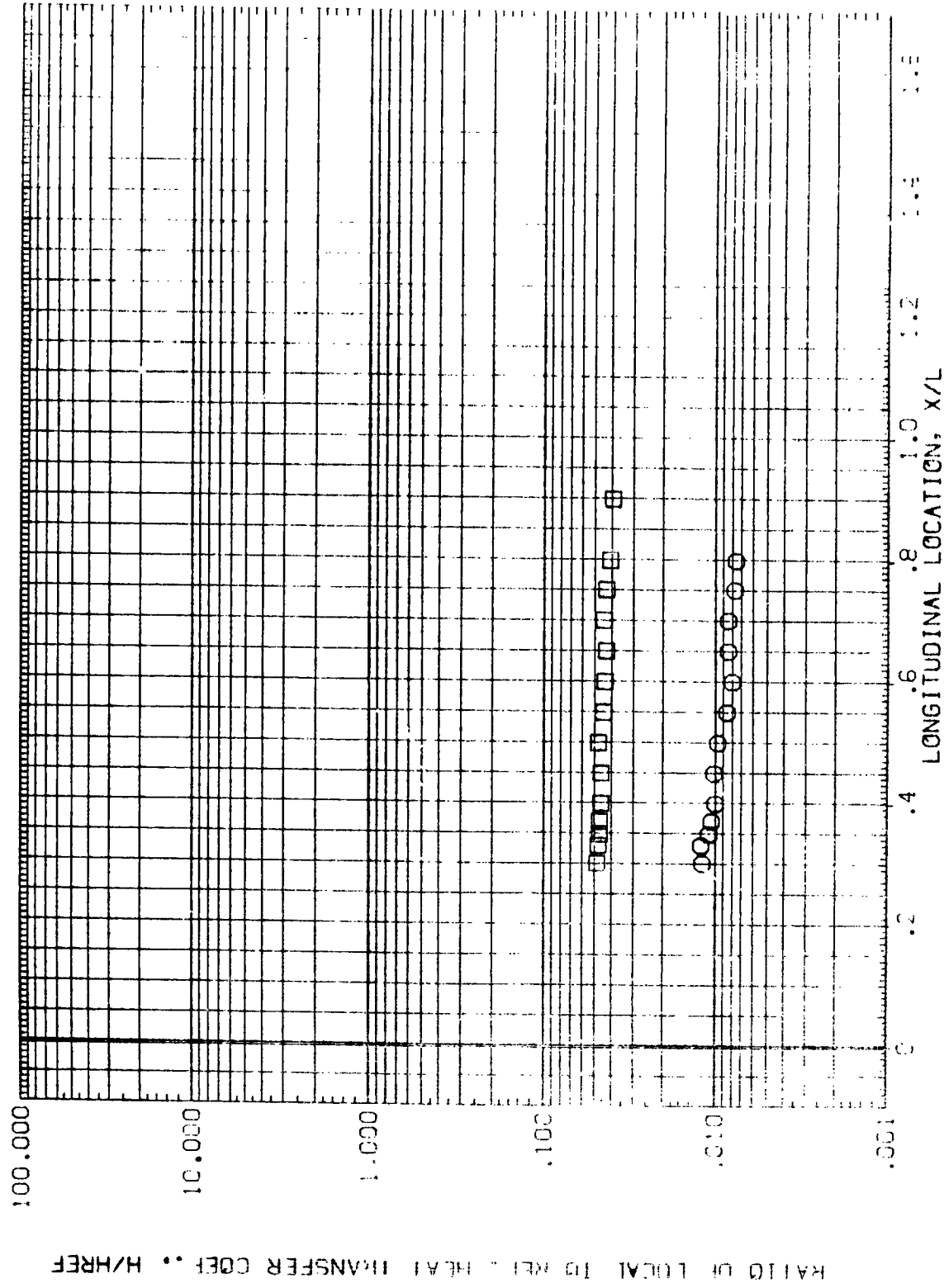


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300      HAWKINT = .900      PHI = 112.500



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RIBF23) ARC3.5-211(148)ET /OGIVE /CLEAN  
 (RIBF20) ARC3.5-211(148)ET /OGIVE /CLEAN

EXT TANK EXT TANK  
 ALPHA BETA RN/L  
 .000 .000 1.500  
 .000 .000 5.000

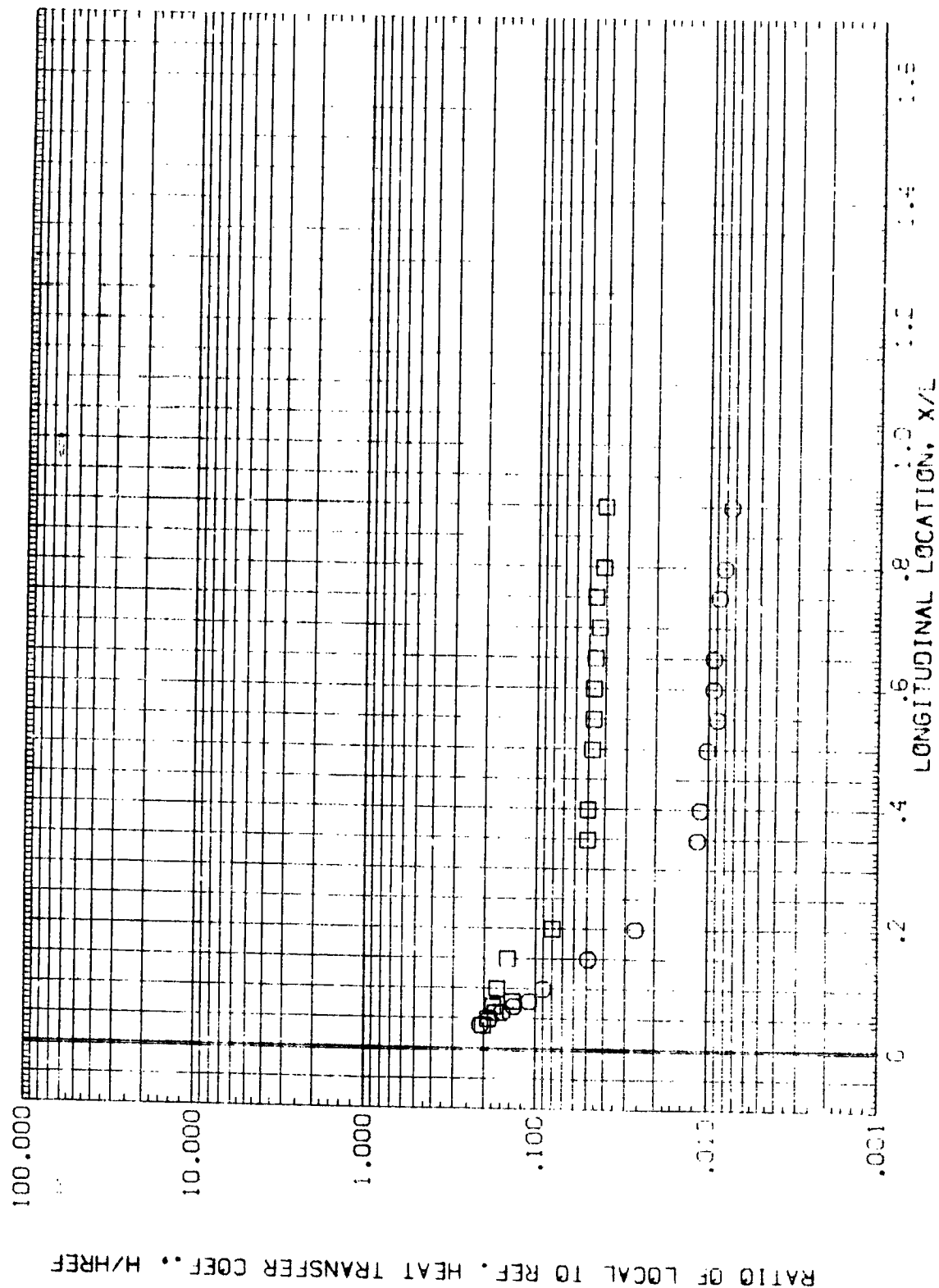


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACTH = 5.300 HAW/HIT = .000 P = 135.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB23) DATA NOT AVAILABLE  
 (RNB20) ARC3.5-211(1H48)ET /06IVE /CLEAN

EXT TANK ALPHA BETA RV/L  
 .000 .000 1.500  
 .000 .000 5.000

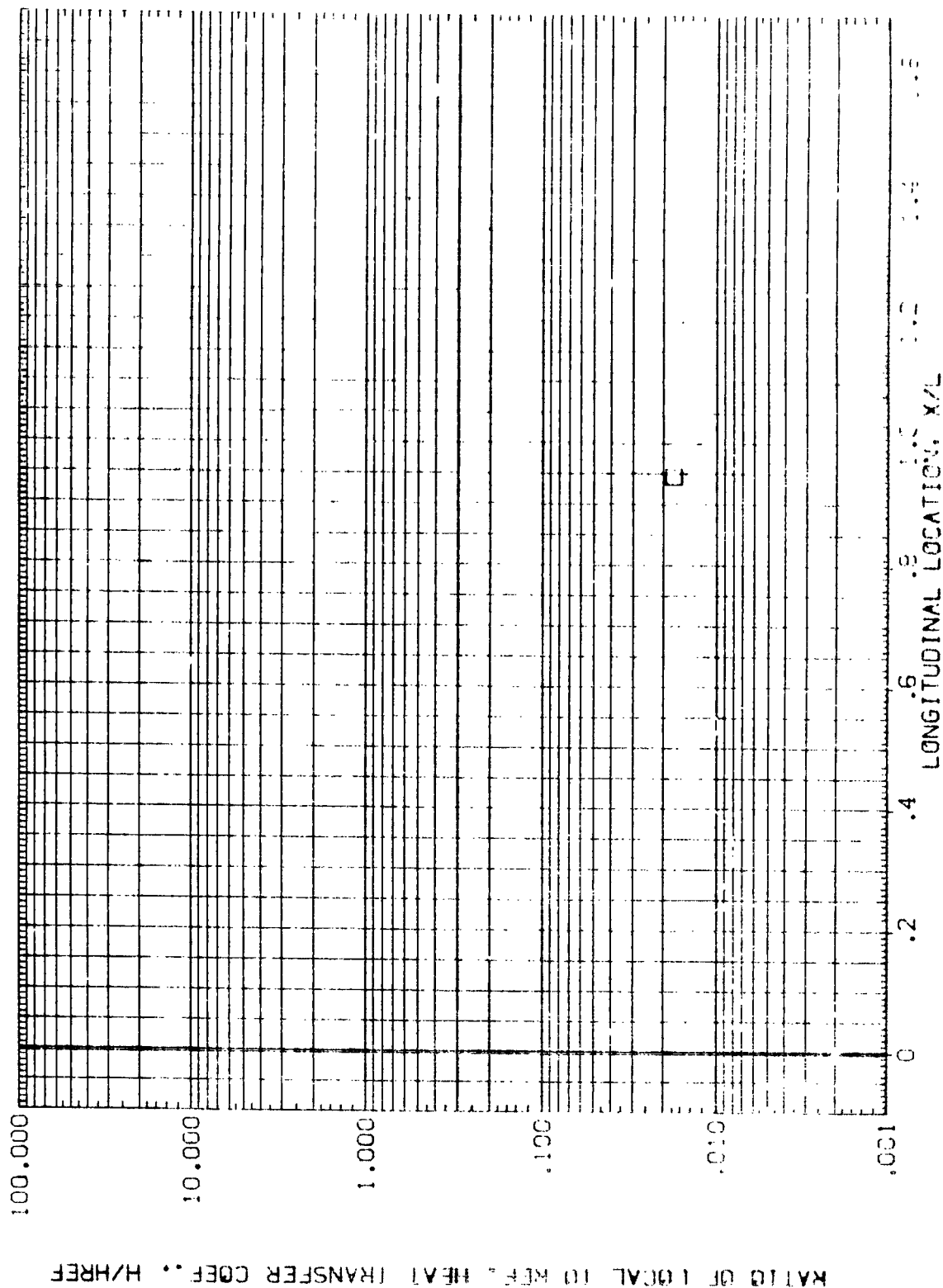


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 154.980

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RIBF23) ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (RIBF20) ARC3.5-211(IH48)ET /OGIVE /CLEAN

ALPHA BETA REYN  
 .000 .000 1.500  
 .000 .000 5.000

EXT TANK  
 EXT TANK

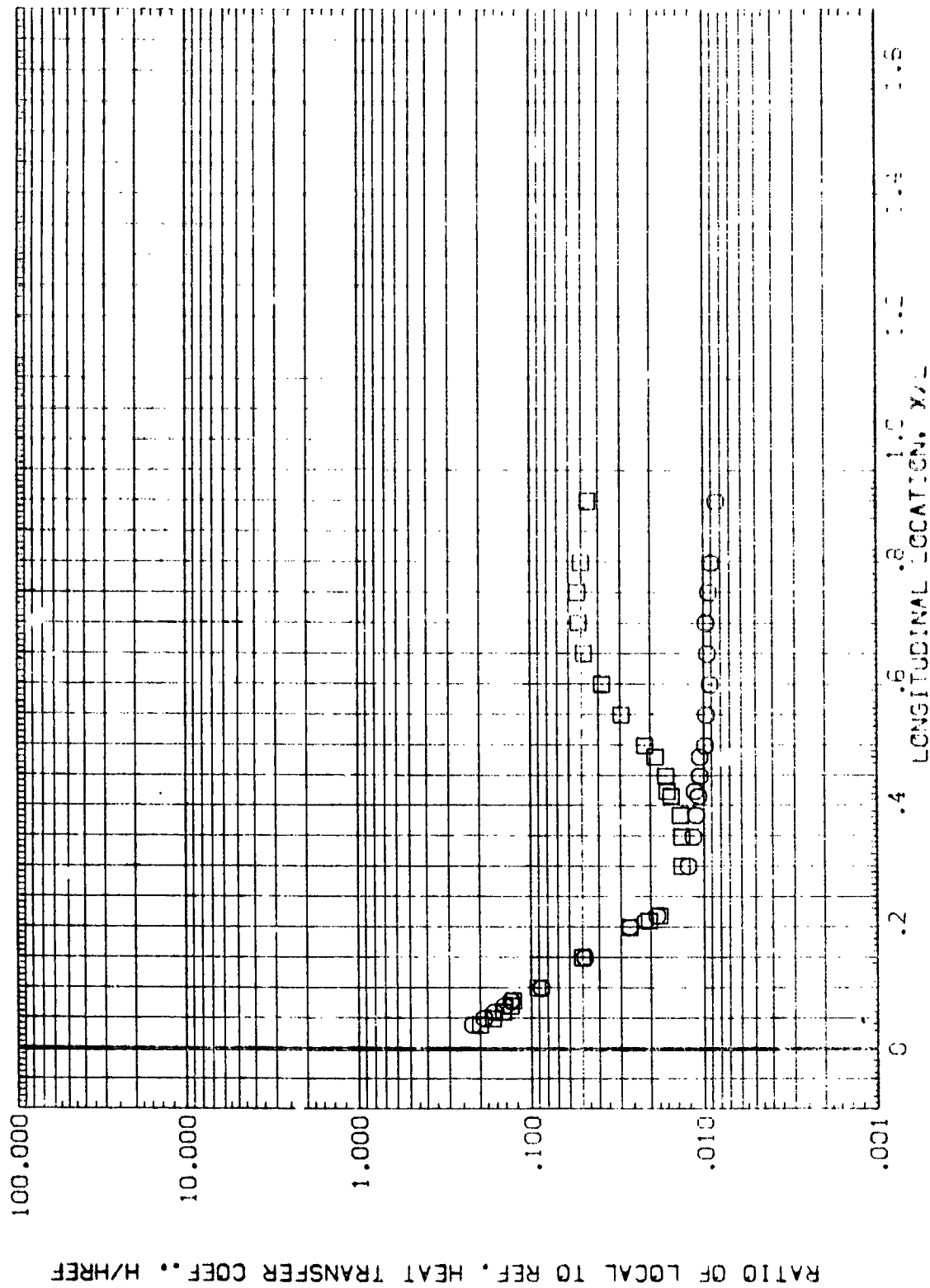


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900  $\phi$  = 180.000

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (RNB23) ARC3.5-211(IH48)ET /OGIVE /CLEAN  
 (RNB23) ARC3.5-211(IH48)ET /OGIVE /CLEAN

EXT TANK EXT TANK  
 ALPHA BETA RNL

.000 .000 1.500  
 .000 .000 5.000

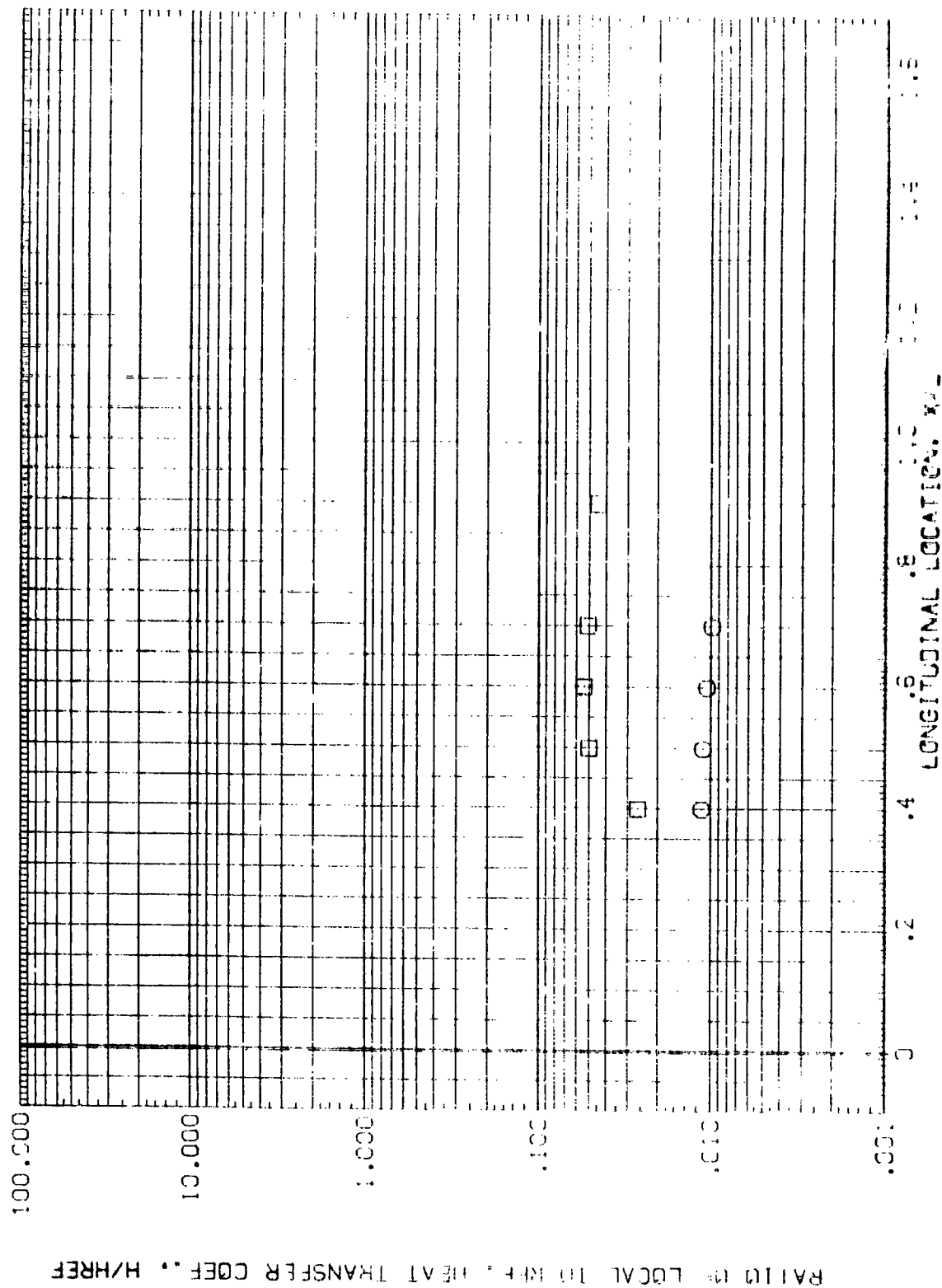


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300  $h_{AW}/h_{ref}$  = .900 PHI = .91.250

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DATA SET 51M2JL CONFIGURATION DESCRIPTION  
 (RNB22) ARC3.5-211C1H48JET /OGIVE /CLEAN  
 (RNB20) ARC3.5-211C1H48JET /OGIVE /CLEAN

ALPHA BETA  
 .003 .003  
 .003 .003

EXT TAV  
 EXT TAV

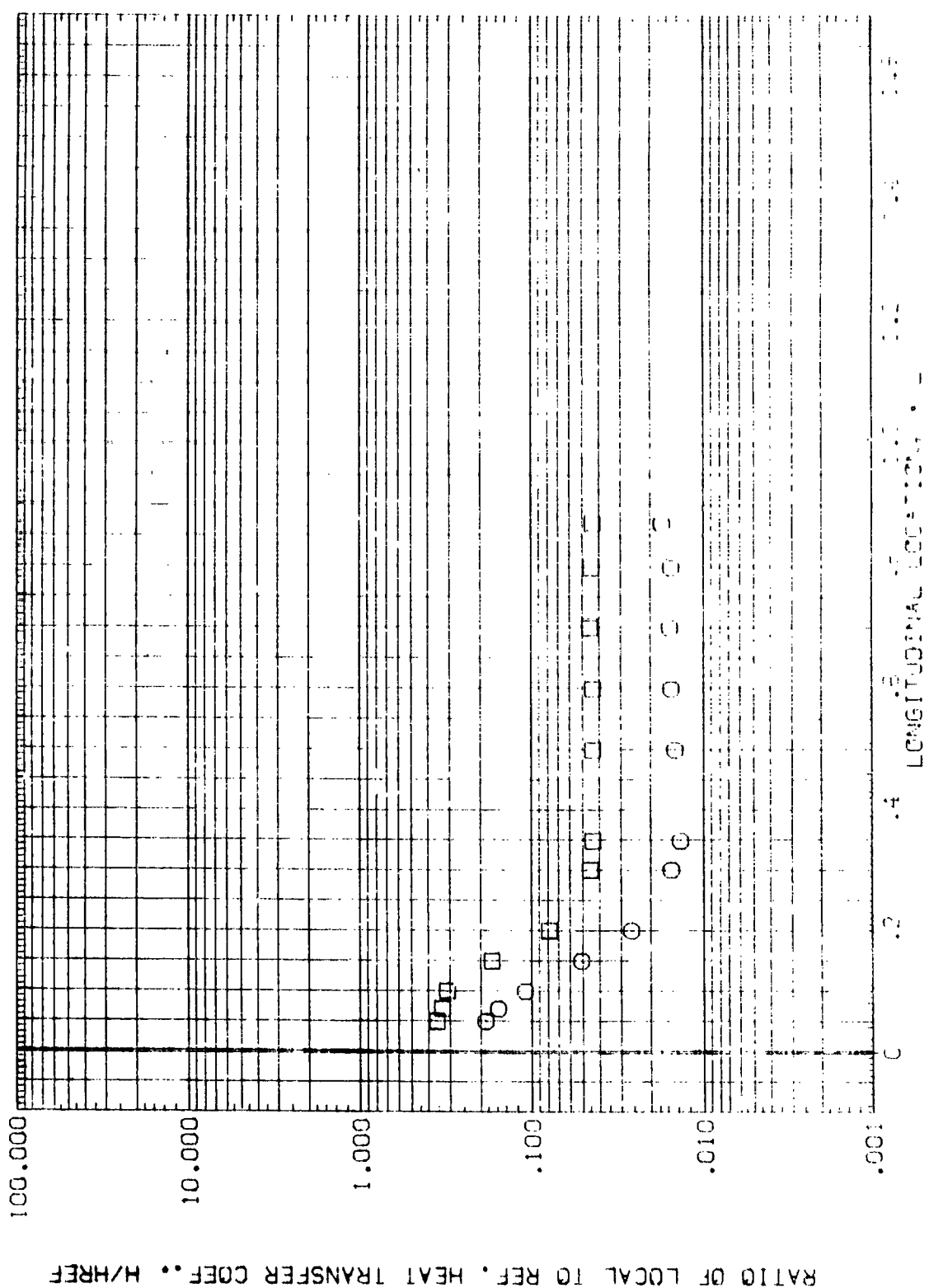


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TAV

MACH = 0.000 MACH = 0.000

DATA SET SYMBOL (RNB24) (RNB25) CONFIGURATION DESCRIPTION ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK ALPHA BETA RN/1 1.500 5.000

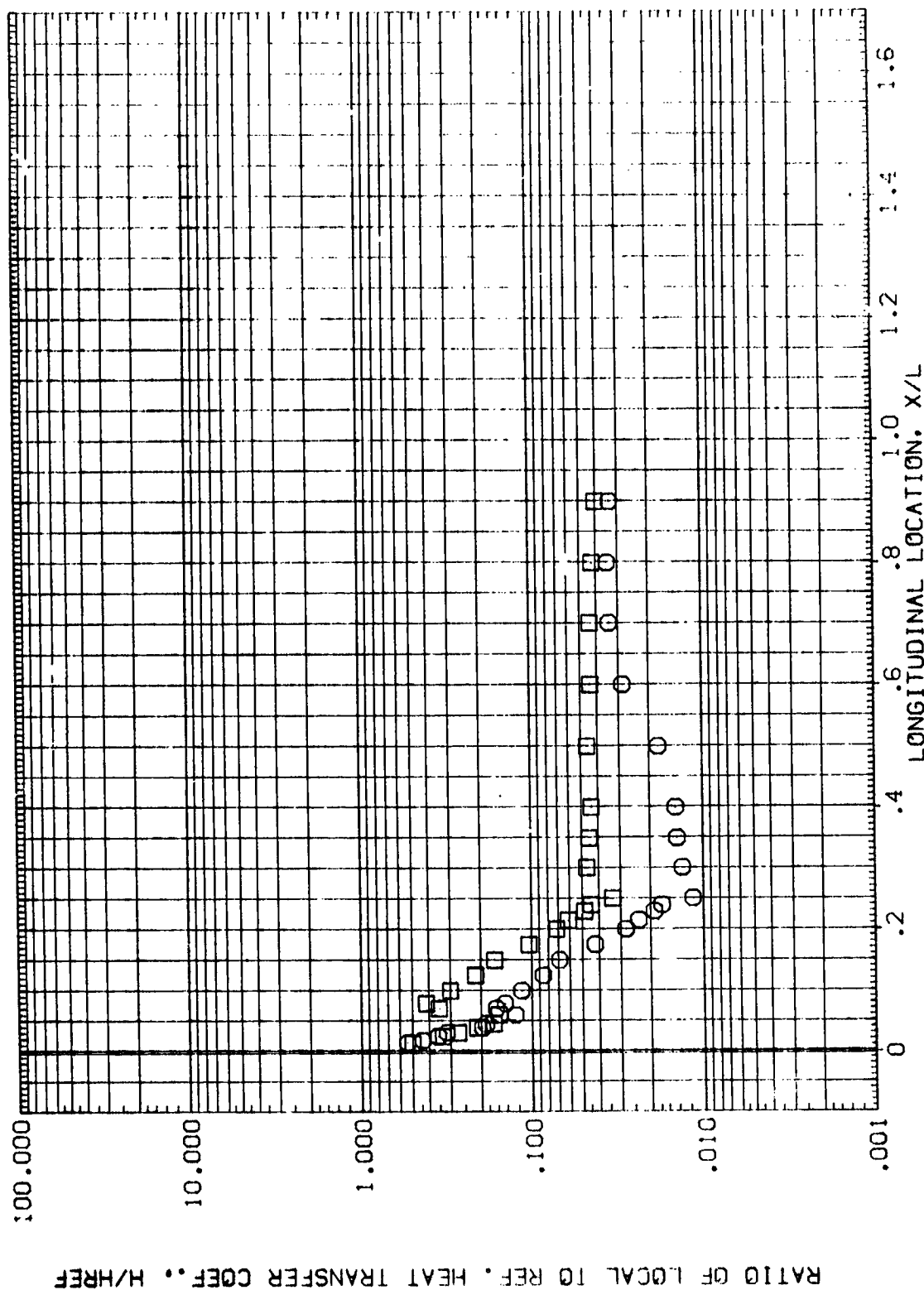


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = .000 PAGE 584

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNB24)    B    ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK    .000    .000    1.500  
 (RNB25)       ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK    .000    .000    5.000

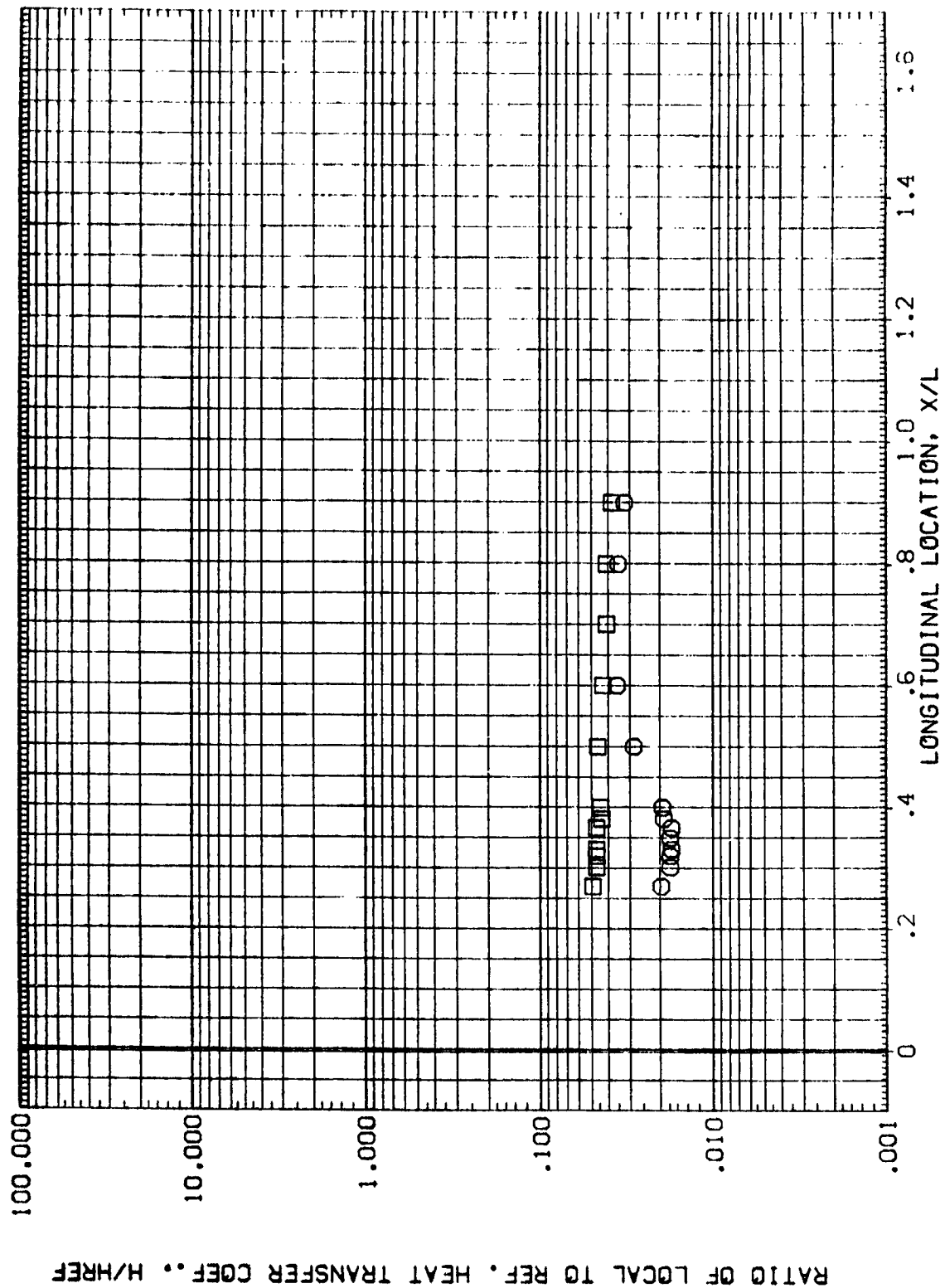


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .900    PHI = 67.500

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L  
 (RNB24)    ARC3.5-211(1H48)ET /OGIVE /CLEAN /TRIP EXT TANK    .000    .000    1.500  
 (RNB25)    ARC3.5-211(1H48)ET /OGIVE /CLEAN /TRIP EXT TANK    .000    .000    5.000

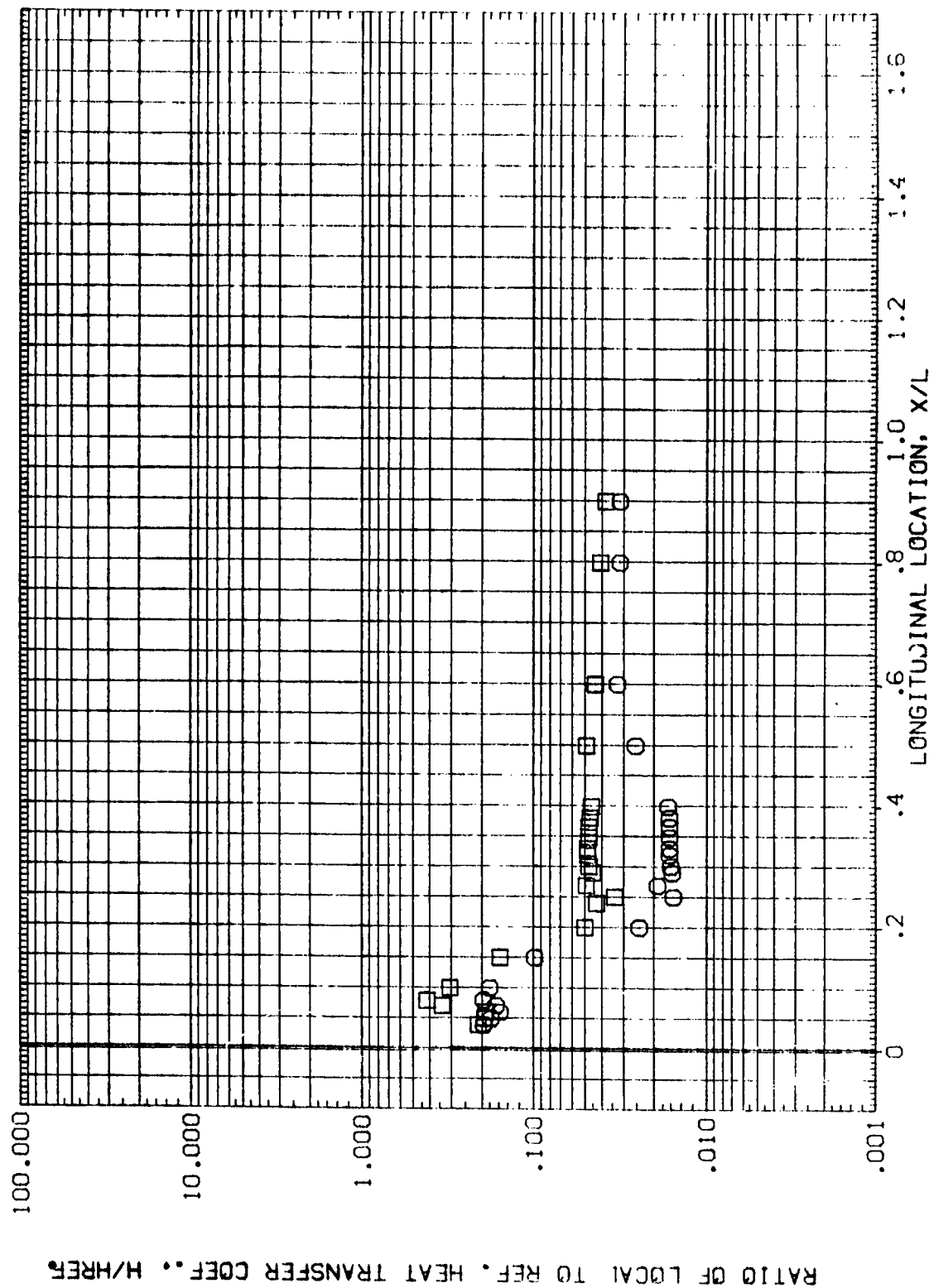


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300    HAW/HT = .300    PHI = 90.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RUBF24) □

ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA .000  
BETA .000  
RN/L 1.500  
5.000

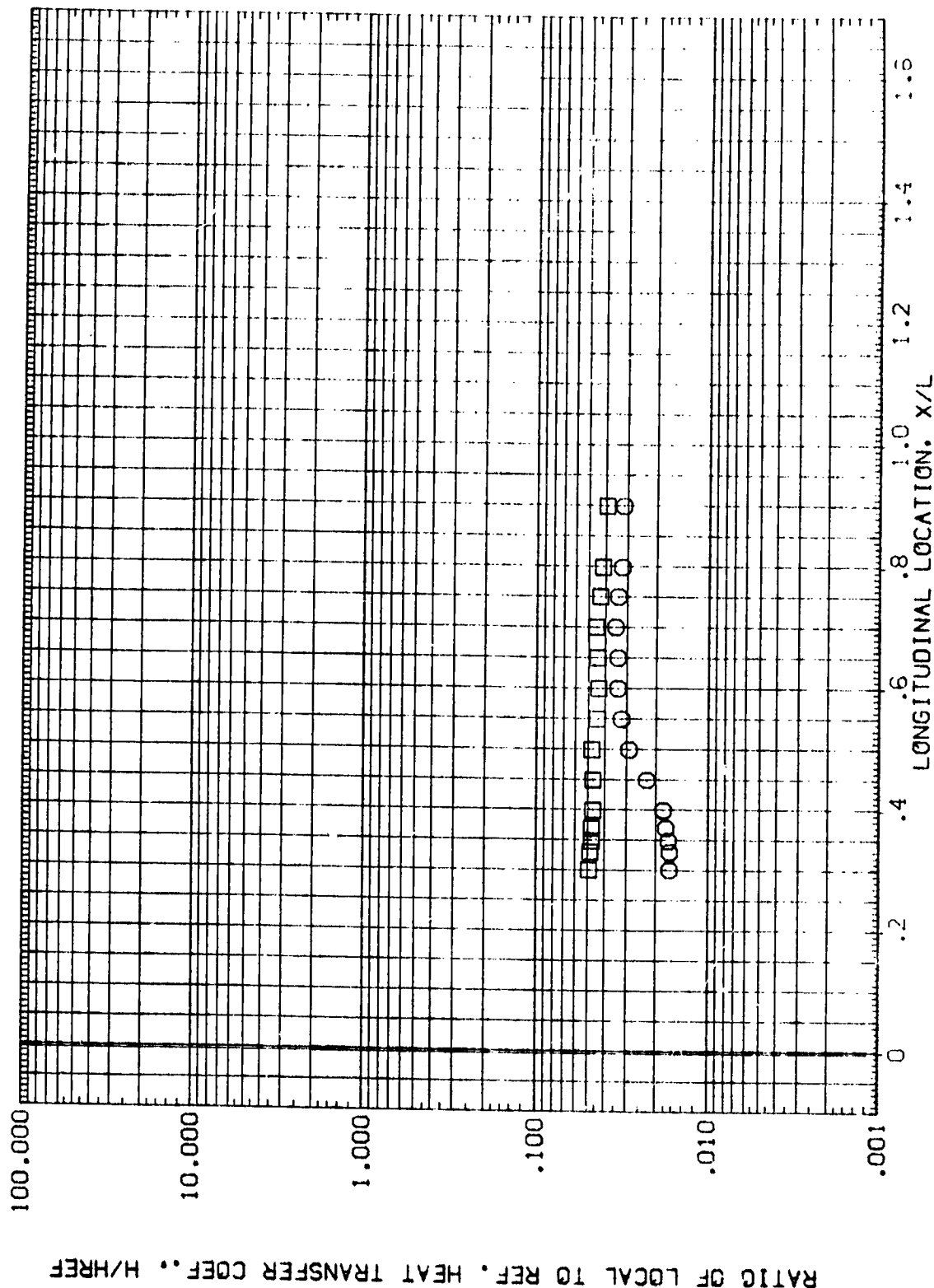


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RMBF24)      ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK      .000      .000      1.500  
 (RMBF25)      ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK      .000      .000      5.000

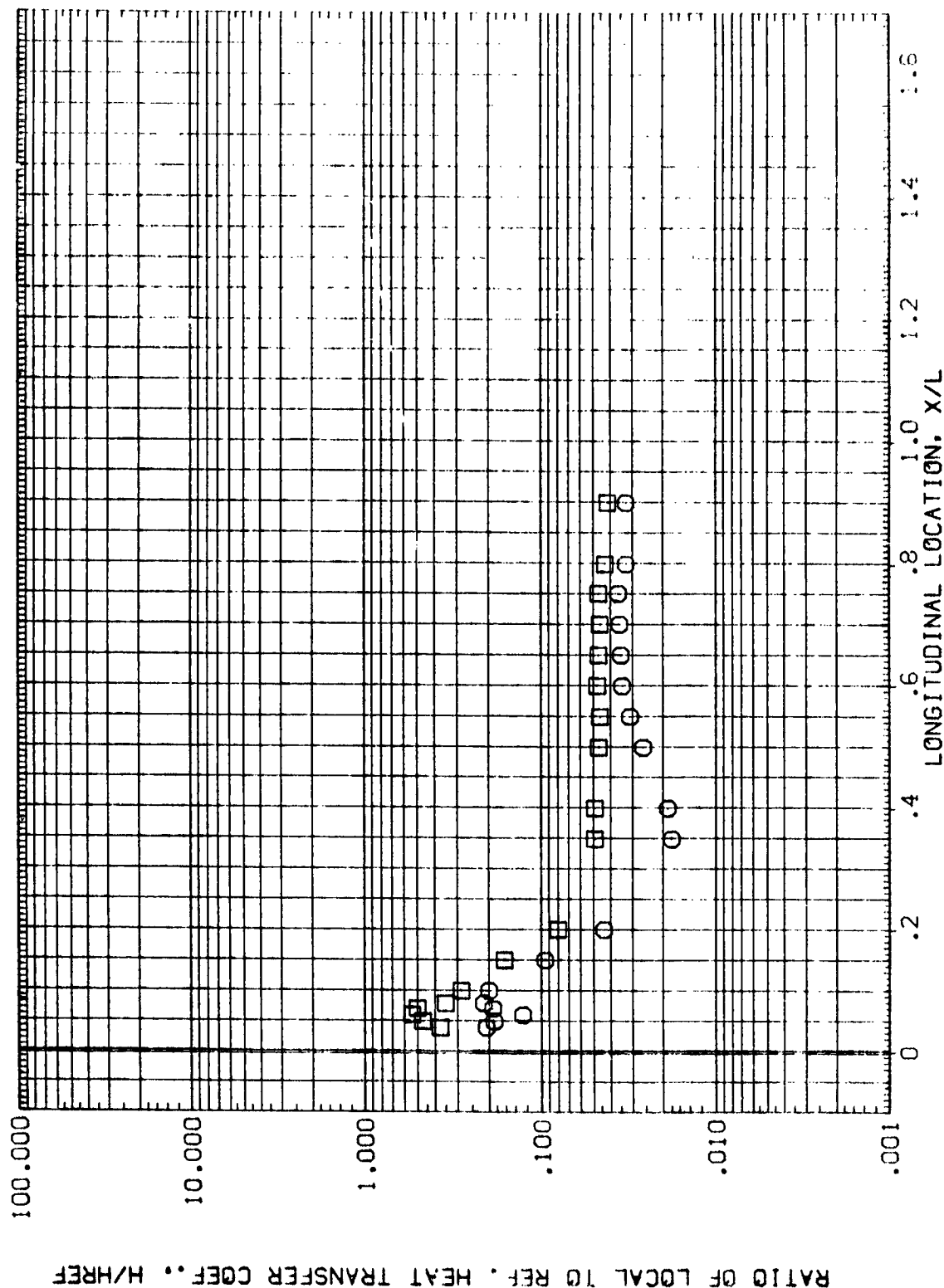


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      PHI = 135.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (RNB24)    DATA NOT AVAILABLE  
 (RNB25)    ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA    BETA    RN/L  
 .000    .000    1.500  
 .000    .000    5.000

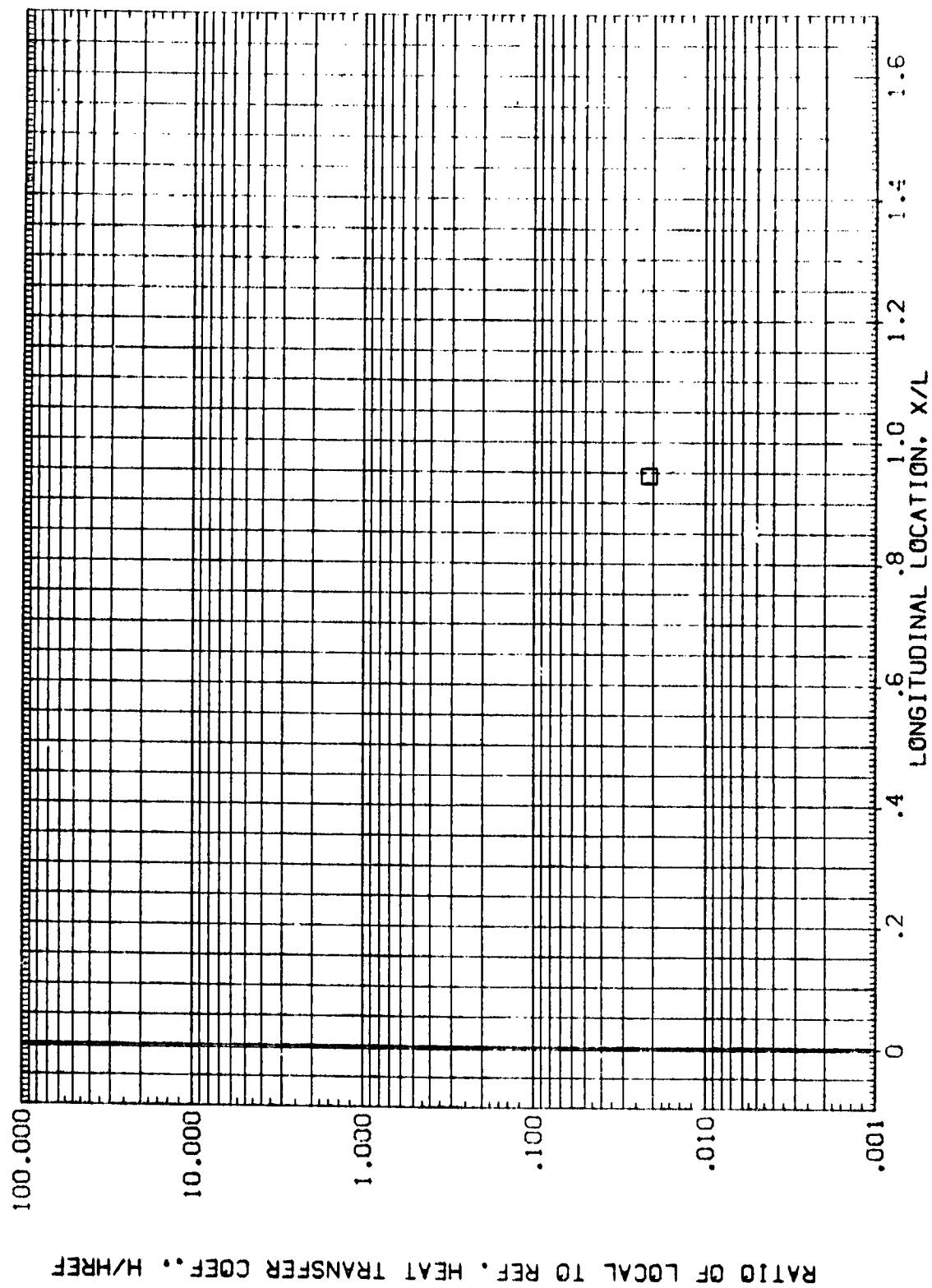


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300    HAW.HT = .900    PHI = 154.980

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (RNGF24)      ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK      .000      .000      1.5CJ  
 (RNGF25)      ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK      .000      .000      5.000

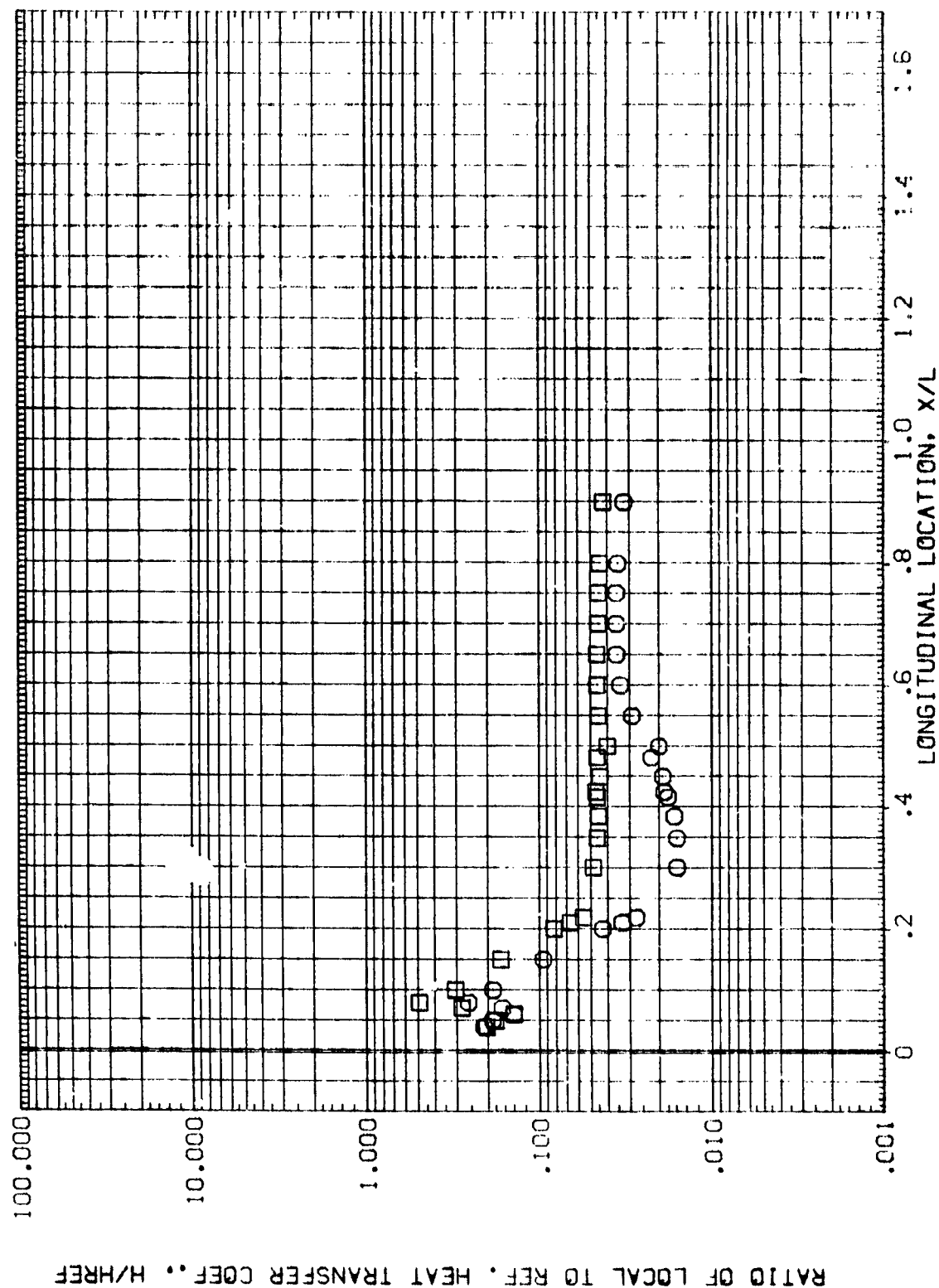


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300      HAW/HT = .900      P-HI = 180.000

DATA SET SYMBOL: CONFIGURATION DESCRIPTION  
 (RMBF24) ARC3.5-211C(H48)ET /OGIVE /CLEAN /TRIP EXT TANK  
 (RMBF25) ARC3.5-211C(H48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA BETA RM/L  
 .000 .000 1.500  
 .000 .000 5.000

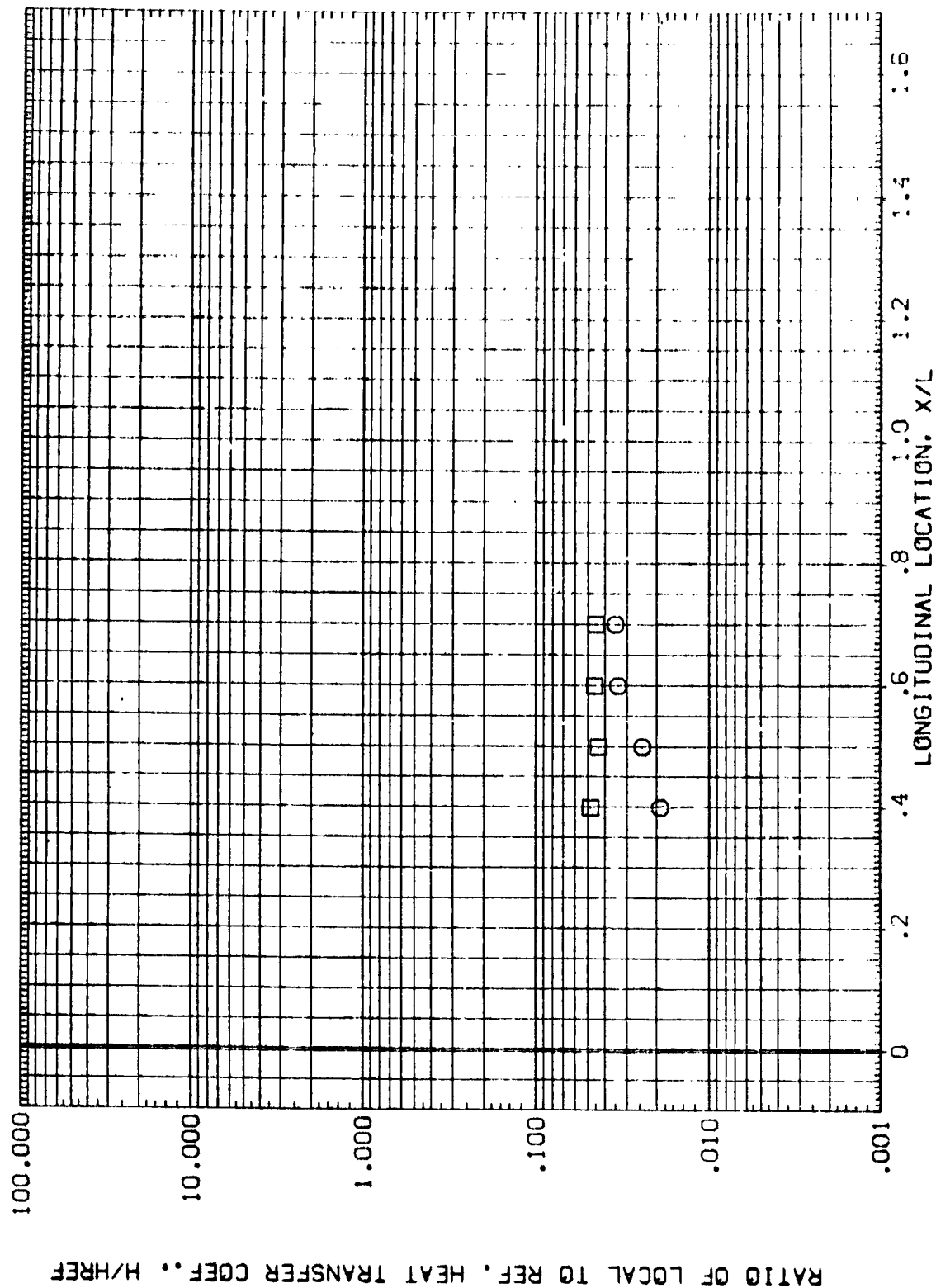


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 H<sup>2</sup>W/HT = .900 PHI = .91.250

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RMBF24) ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK  
(RMBF25) ARC3.5-211(IH48)ET /OGIVE /CLEAN /TRIP EXT TANK

ALPHA BETA RV/L  
.000 .000 1.500  
.000 .000 5.000

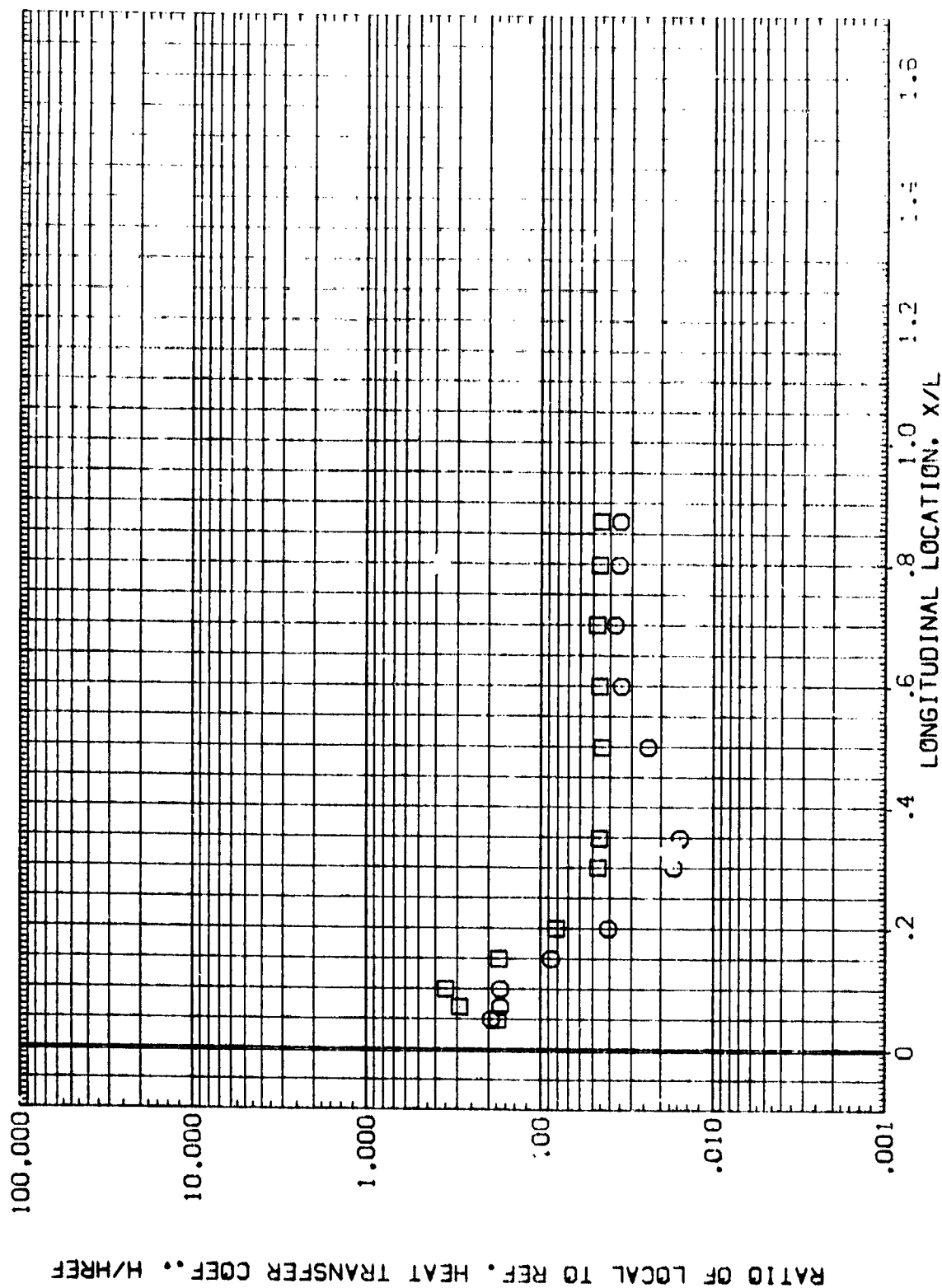


FIG. 11 EFFECT OF REYNOLDS NUMBER ON EXTERNAL TANK

MACH = 5.300 HAW/HT = .900 PHI = 217.700

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DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZV7E14) IH41(AEDC V41-A4A) T3 NIPPLE NOSE ET  
 (ZV7E21) IH41(AEDC V41-A4A) T3 NIPPLE NOSE ET  
 (R35F17) ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK ALPHA BETA RN/L  
 .030 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

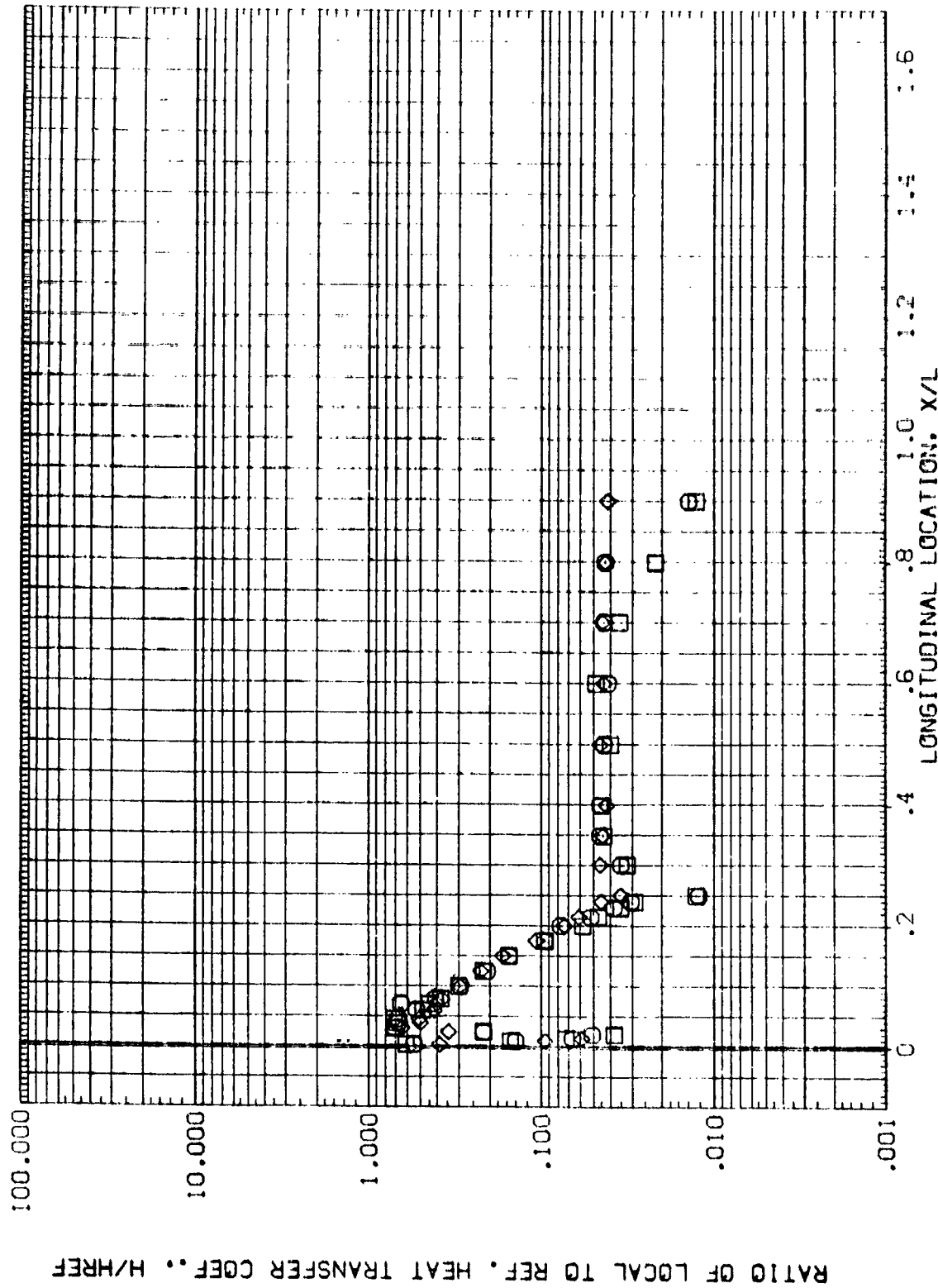


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = .000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (ZV7F14)    IH41CAEDC V41-A4A1 T3 NIPPLE NOSE ET  
 (ZV7F21)    IH41CAEDC V41-A4A1 T3 NIPPLE NOSE ET  
 (RHBF17)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

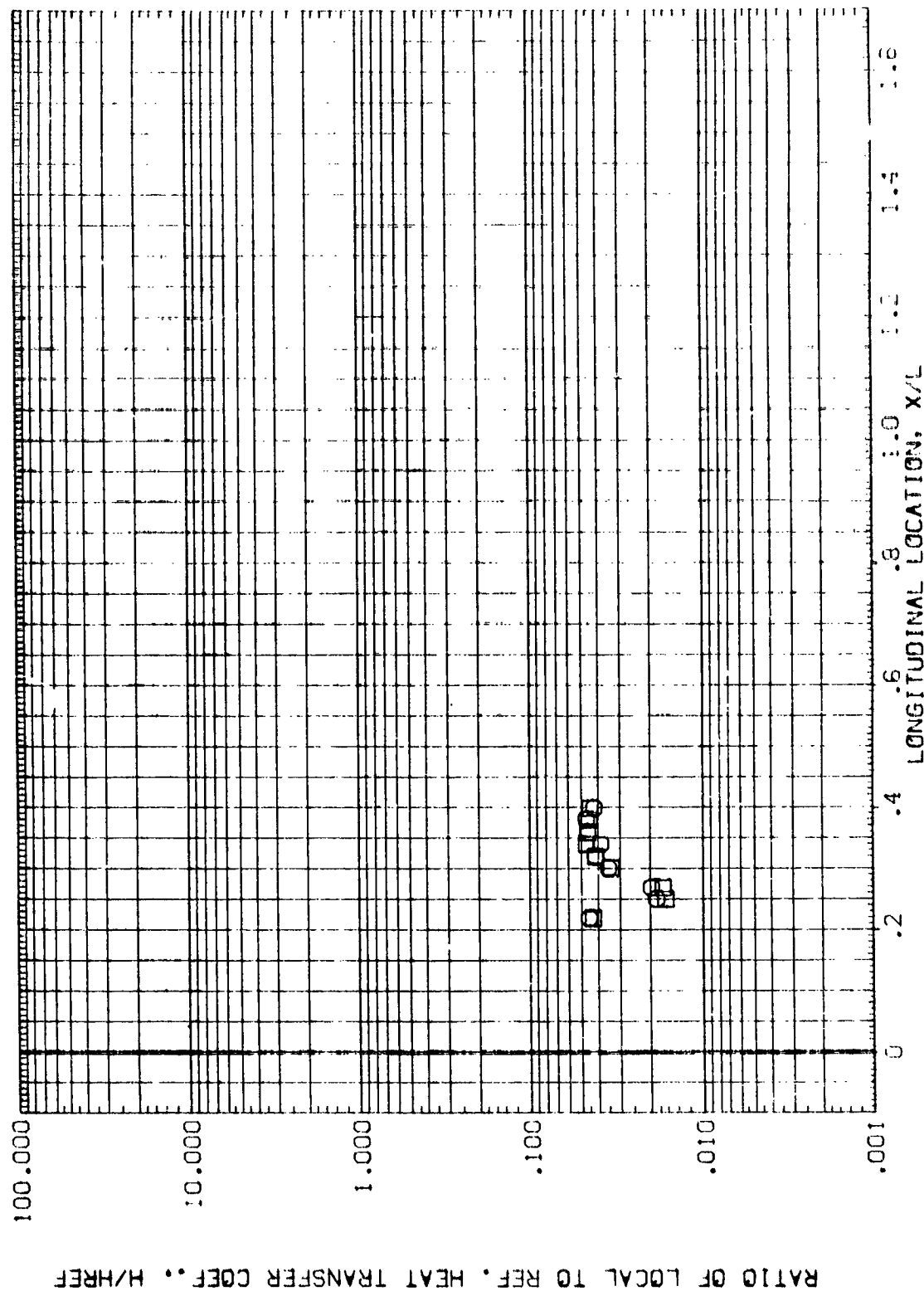


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

MACH = 5.300    HAW/HT = .900    PHI = 55.000



DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZV7F14) IH41(AE0C V41-A4A) T3 NIPPLE NOSE ET  
 (ZV7F21) IH41(AE0C V41-A4A) T3 NIPPLE NOSE ET  
 (RNB17) DATA NOT AVAILABLE

ALPHA BETA RW/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

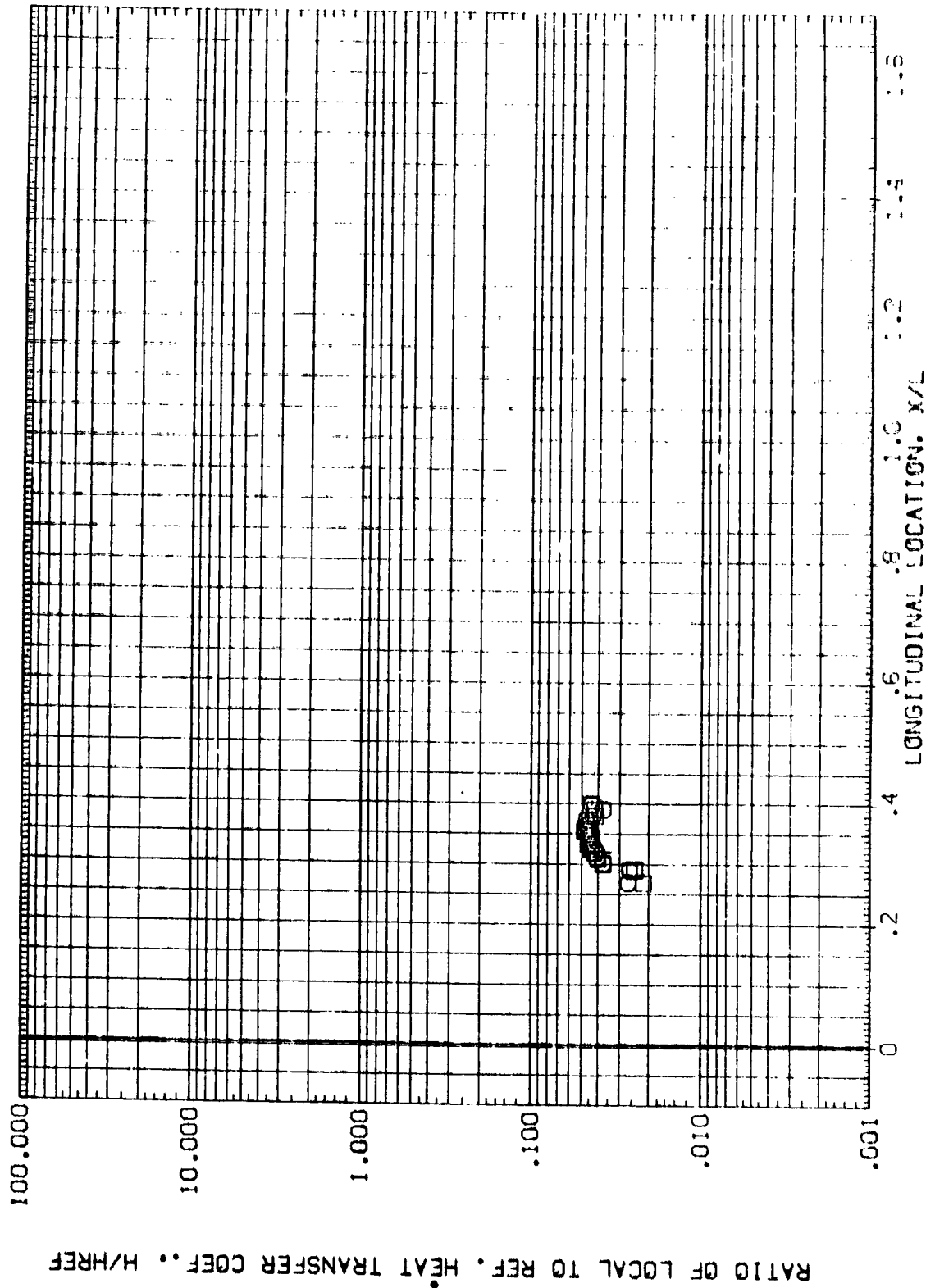


FIG. 12 IH48 COMPARISON WITH IH41. TANK WITH NIPPLE NOSE

MACH = 5.300 M/W/H = .900 PHI = 79.000

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (ZV7F14)    (IH41CAEDC V41-A4A) T3 NIPPLE NOSE ET  
 (ZV7F21)    (IH41CAEDC V41-A4A) T3 NIPPLE NOSE ET  
 (RNB17)    ARC3.5-211(IH48)JET /NIPPLE/CLEAN

ALPHA    BETA    R/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

EXT TANK

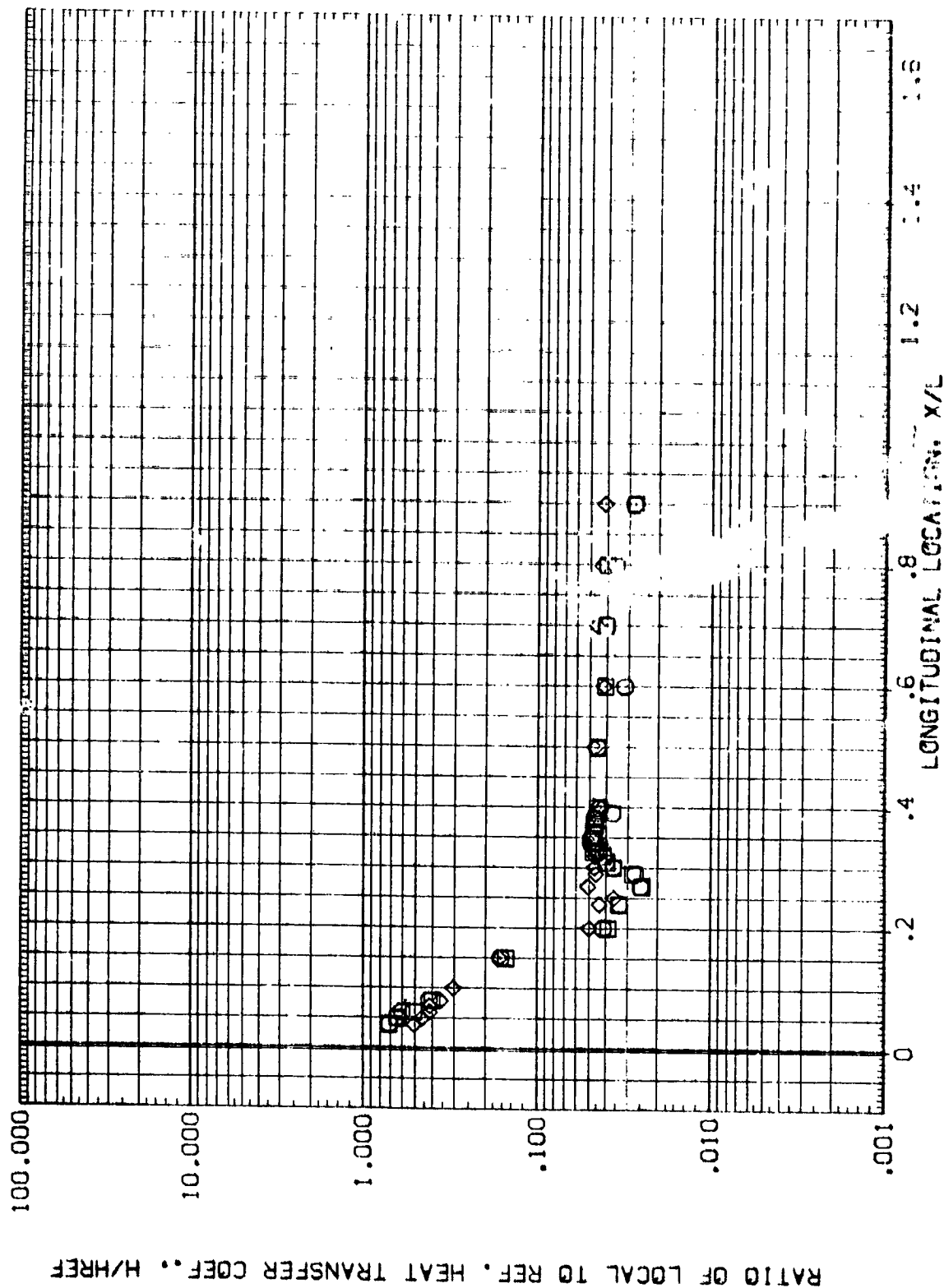


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 90.000

1.00 598

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (ZV7F14)      IH41(CAEDC V41-A4A) T3 NIPPLE NOSE ET  
 (ZV7F21)      IH41(CAEDC V41-A4A) T3 NIPPLE NOSE ET  
 (RNB7F17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN

EXT TANK

ALPHA      BETA      RV/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

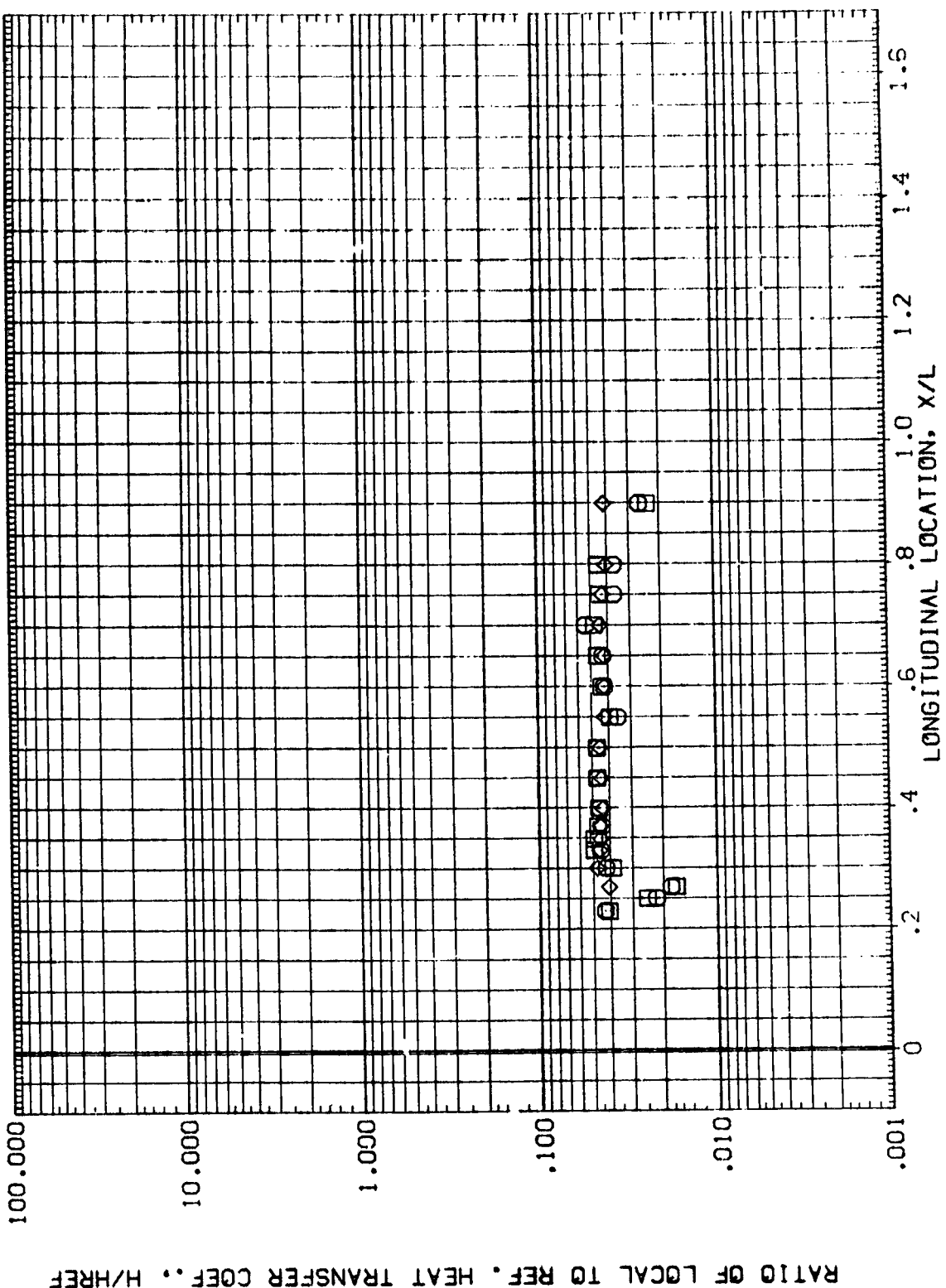


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

MACH = 5.300      HAW/HT = .900      PHI = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (ZV7F14)      IH41CAEDC V41-A4A) T3 NIPPLE NOSE ET  
 (ZV7F21)      IH41CAEDC V41-A4A) T3 NIPPLE NOSE ET  
 (RNGF17)      DATA NOT AVAILABLE

ALPHA      BETA      RH/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

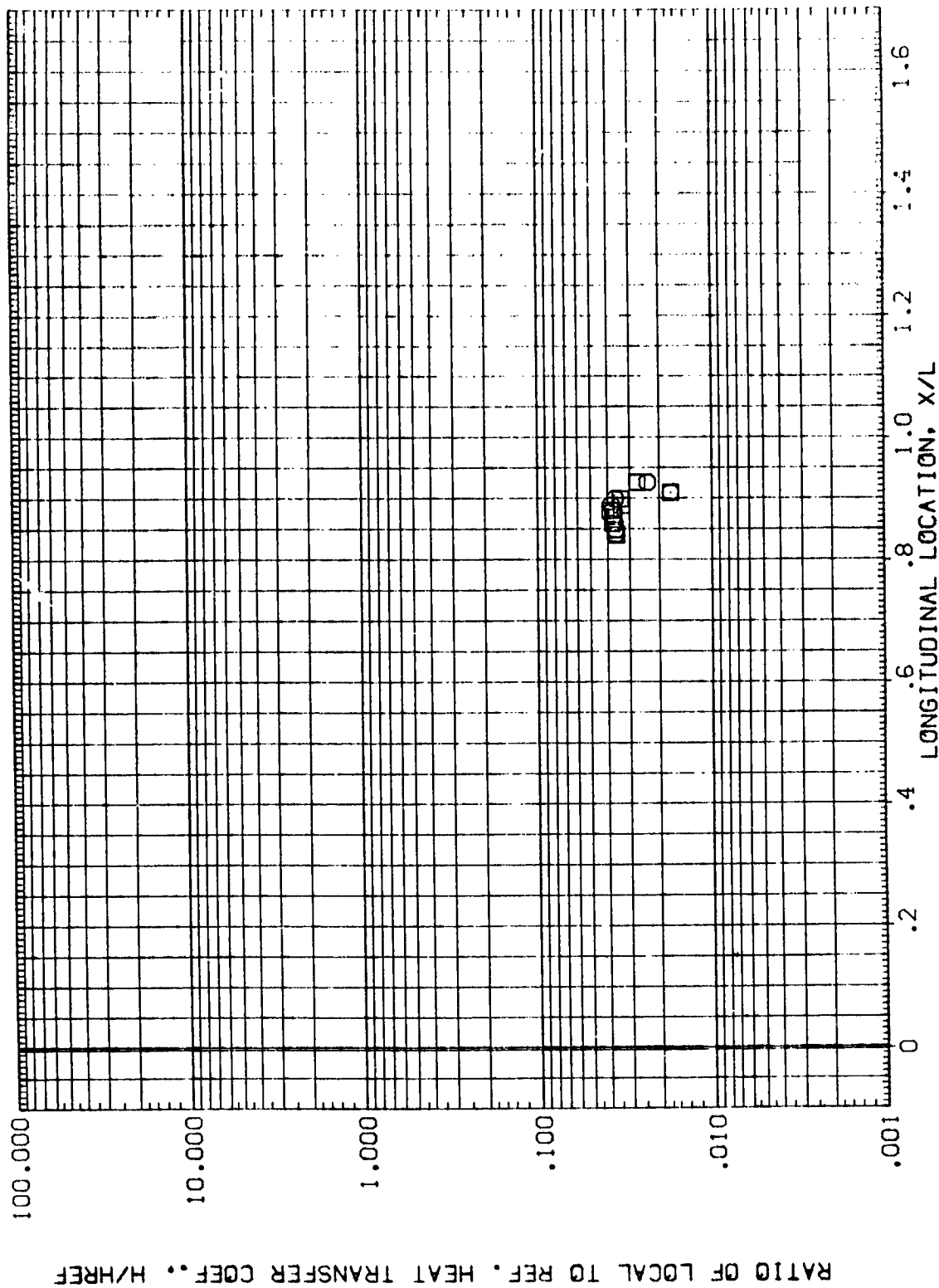


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

MACH = 5.300      HAW/HT = .900      PHI = 125.400

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (ZV7F14)    IH41AEDC V41-A4A) T3 NIPPLE NOSE ET  
 (ZV7F21)    IH41AEDC V41-A4A) T3 NIPPLE NOSE ET  
 (RNB17)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

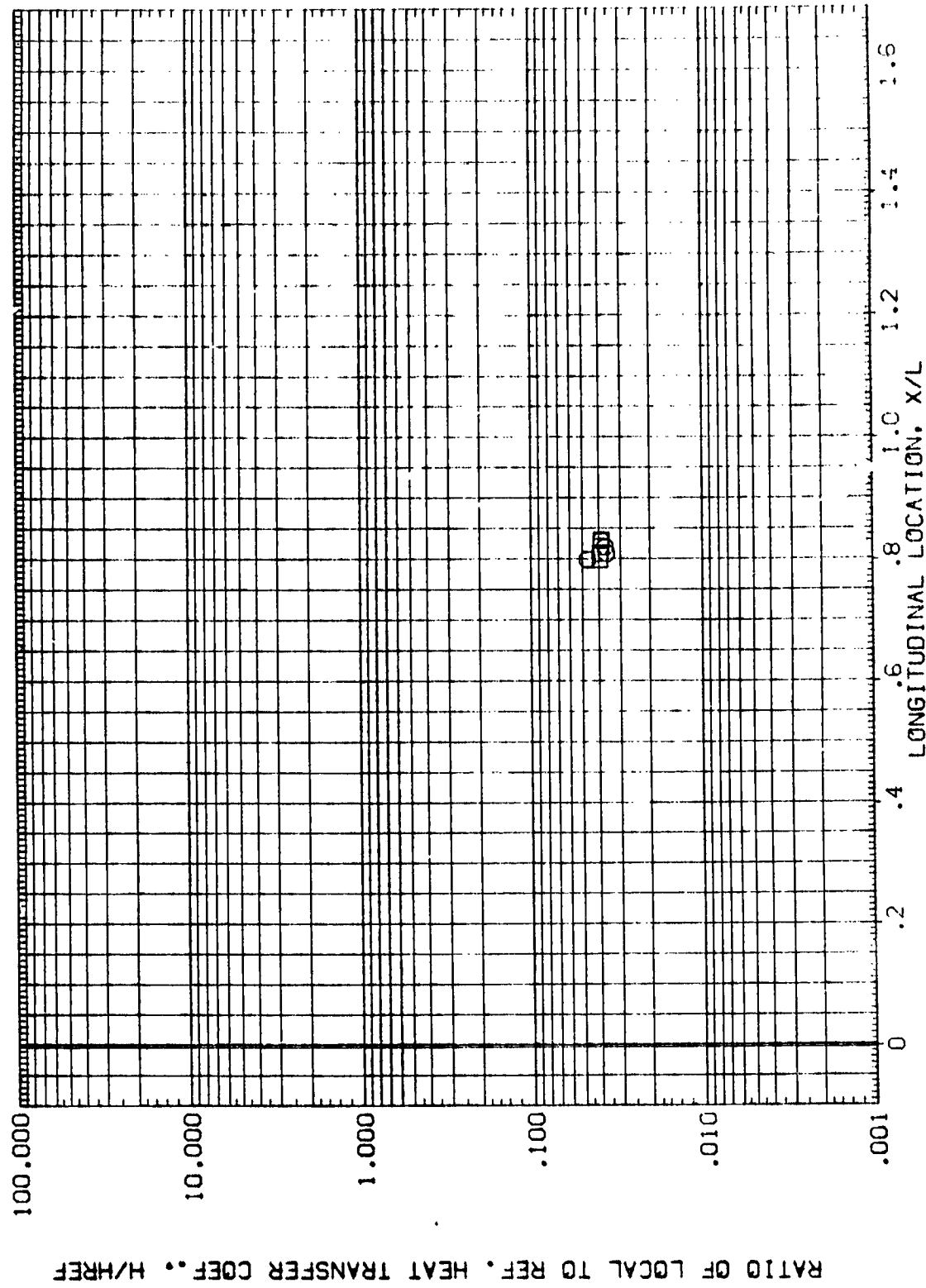


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

MACH = 5.300    HAW/HT = .900    PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(ZV7E14)      IH41(AEDC V41-A4A) T3 NIPPLE NOSE ET      .000      .000      5.000

(ZV7E21)      IH41(AEDC V41-A4A) T3 NIPPLE NOSE ET      .000      .000      5.000

(RNB17)      ARC3.5-211(IH48)ET /NIPPLE/CLEAN      .000      .000      5.000

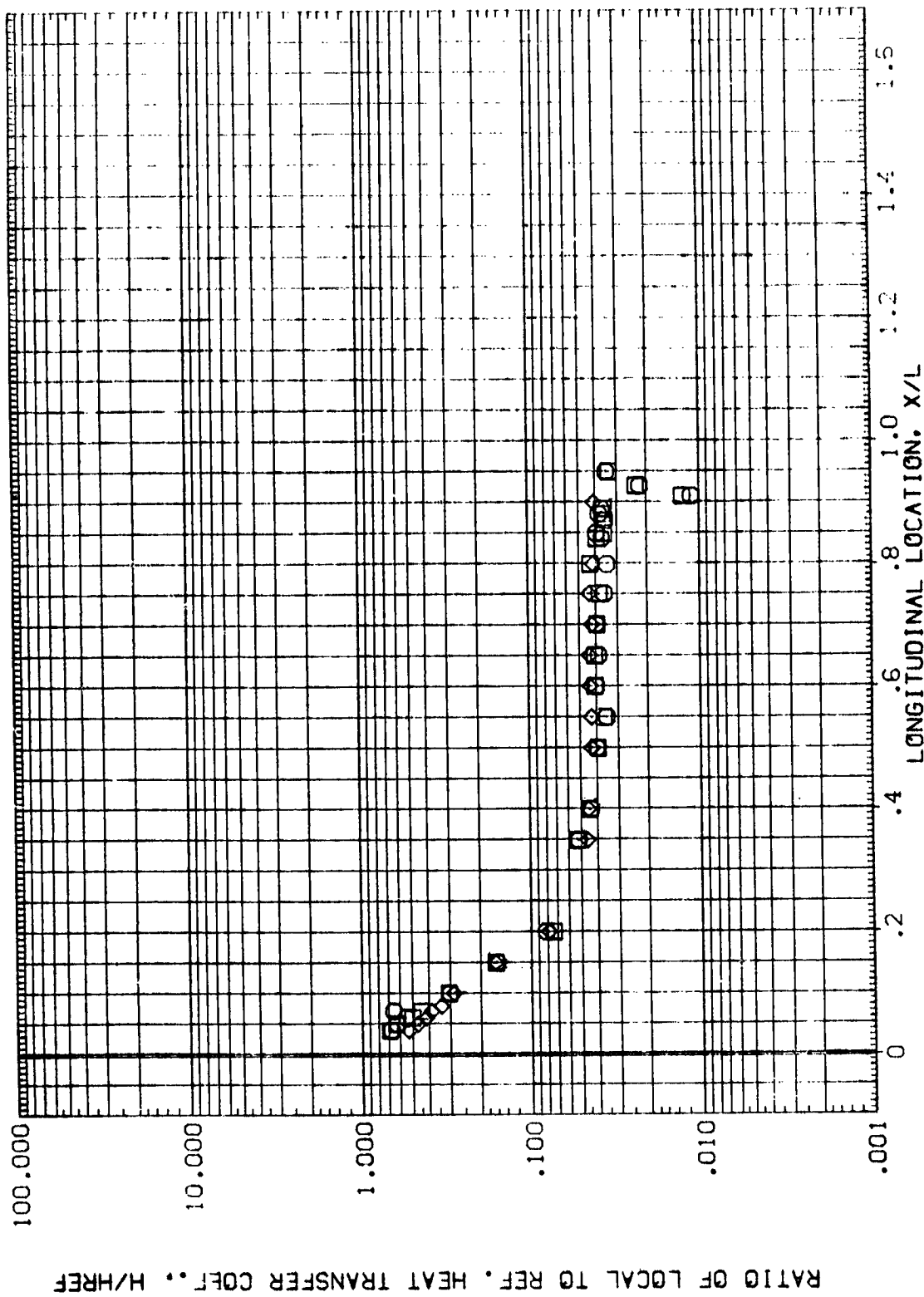


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 135.000

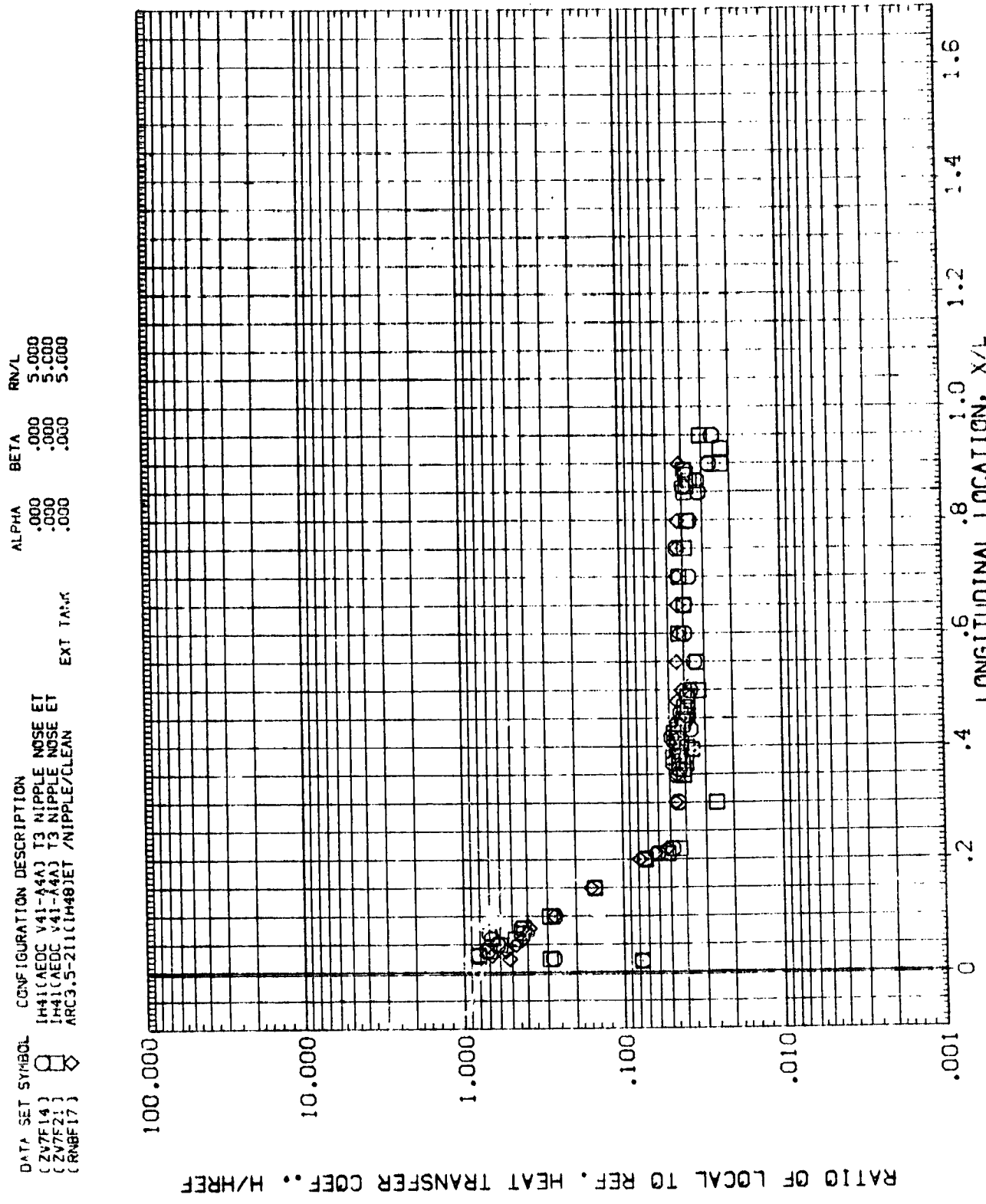


FIG. 12 IH48 COMPARISON WITH IH41, TANK WITH NIPPLE NOSE

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA RV/L

IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 ARC3.5-211(IH48)ET /OGIVE /CLEAN

EXT TANK

5.000  
 5.000  
 5.000

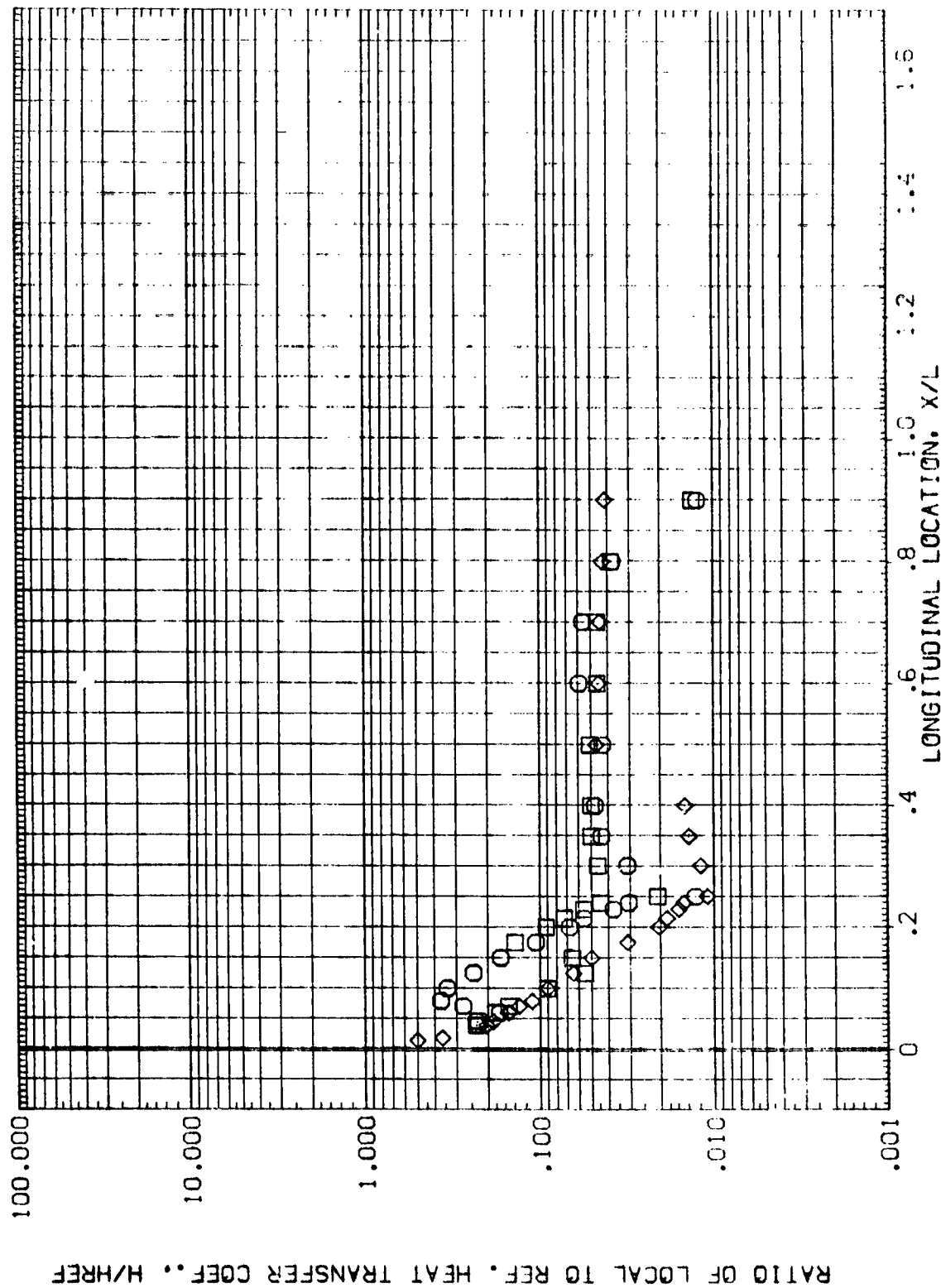


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 P-HI = .000



DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (ZV7F01)      IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (ZV7F04)      IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (RBF20)      DATA NOT AVAILABLE

ALPHA      BETA       $Re_{x/L}$   
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

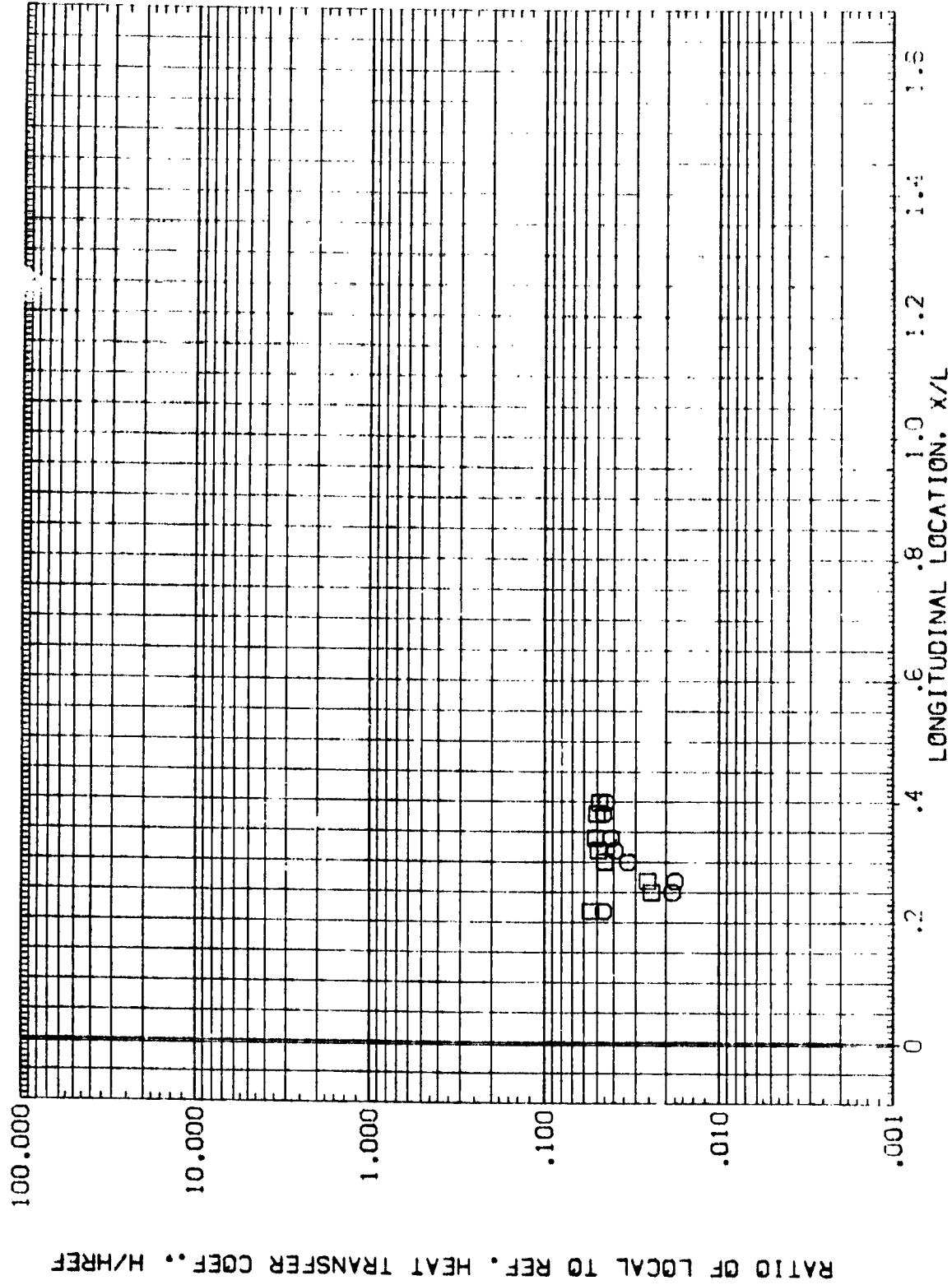


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 P-I = 55.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(ZV7F01) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (ZV7F04) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (RNGF20) DATA NOT AVAILABLE

ALPHA BETA QN/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

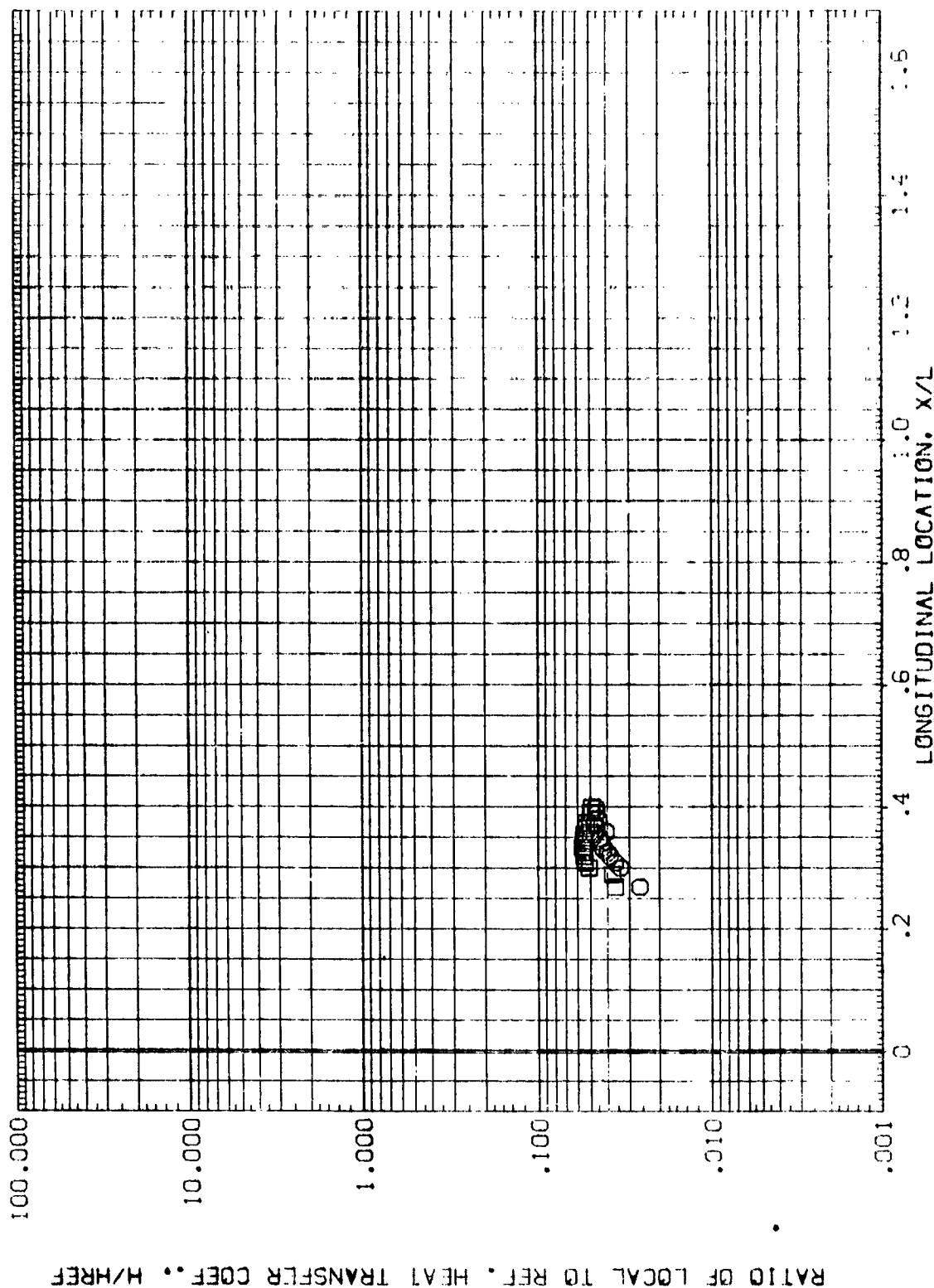


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 78.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZV7FC1) [IH41(AEDC V41A-A4A)] T1 SMOOTH NOSE ET  
 (ZV7FC4) [IH41(AEDC V41A-A4A)] T1 SMOOTH NOSE ET  
 (RNB20) ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK

ALPHA BETA RN/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

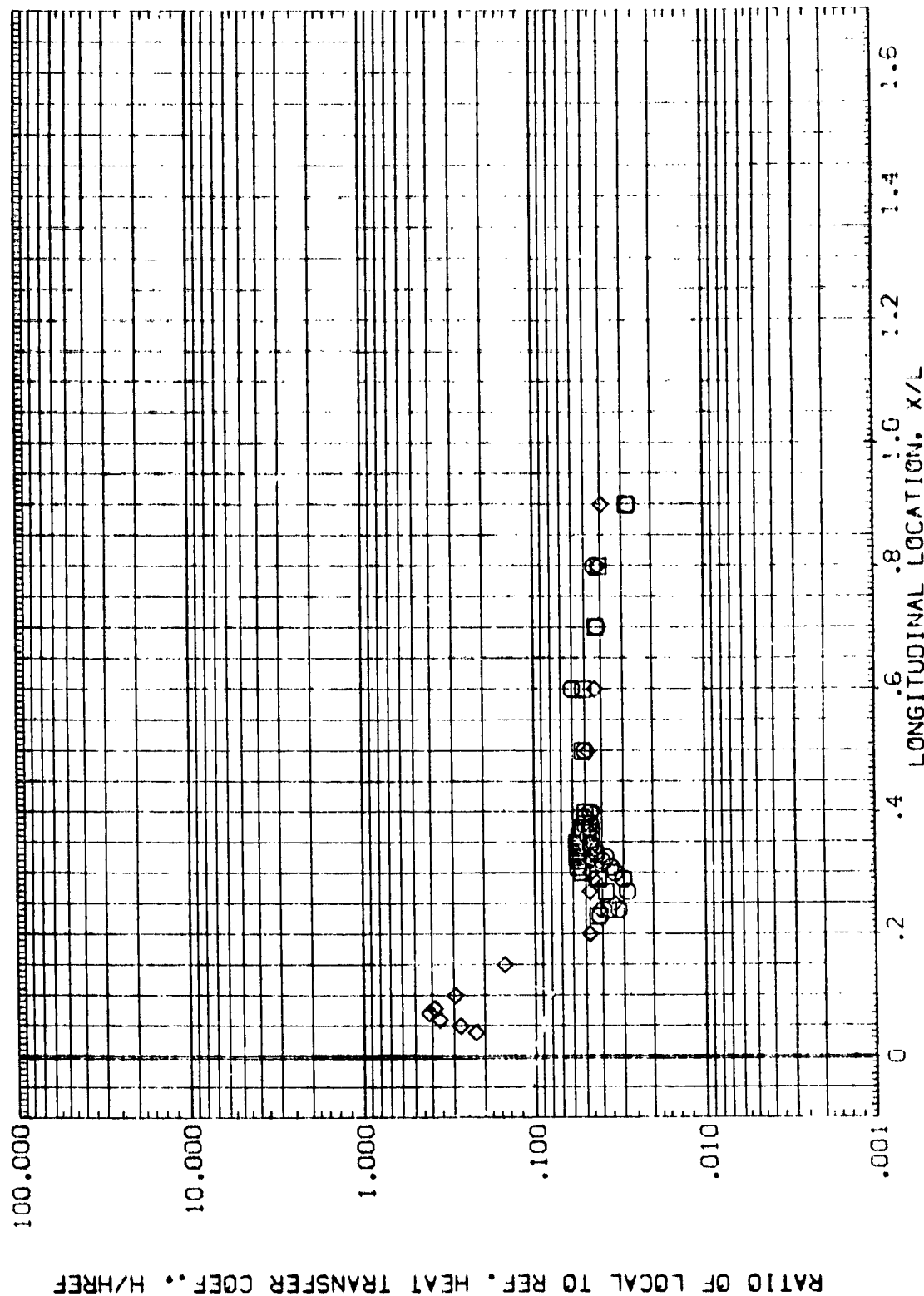


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAWKITE = .900 PHI = 90.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L

(ZV7F01)      IH41CKEDC V41A-A4A) T1 SMOOTH NOSE ET      .000      .000      5.000

(ZV7F04)      IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET      .000      .000      5.000

(RNB720)      ARC3.5-211(IH48)ET /06IVE /CLEAN      .000      .000      5.000

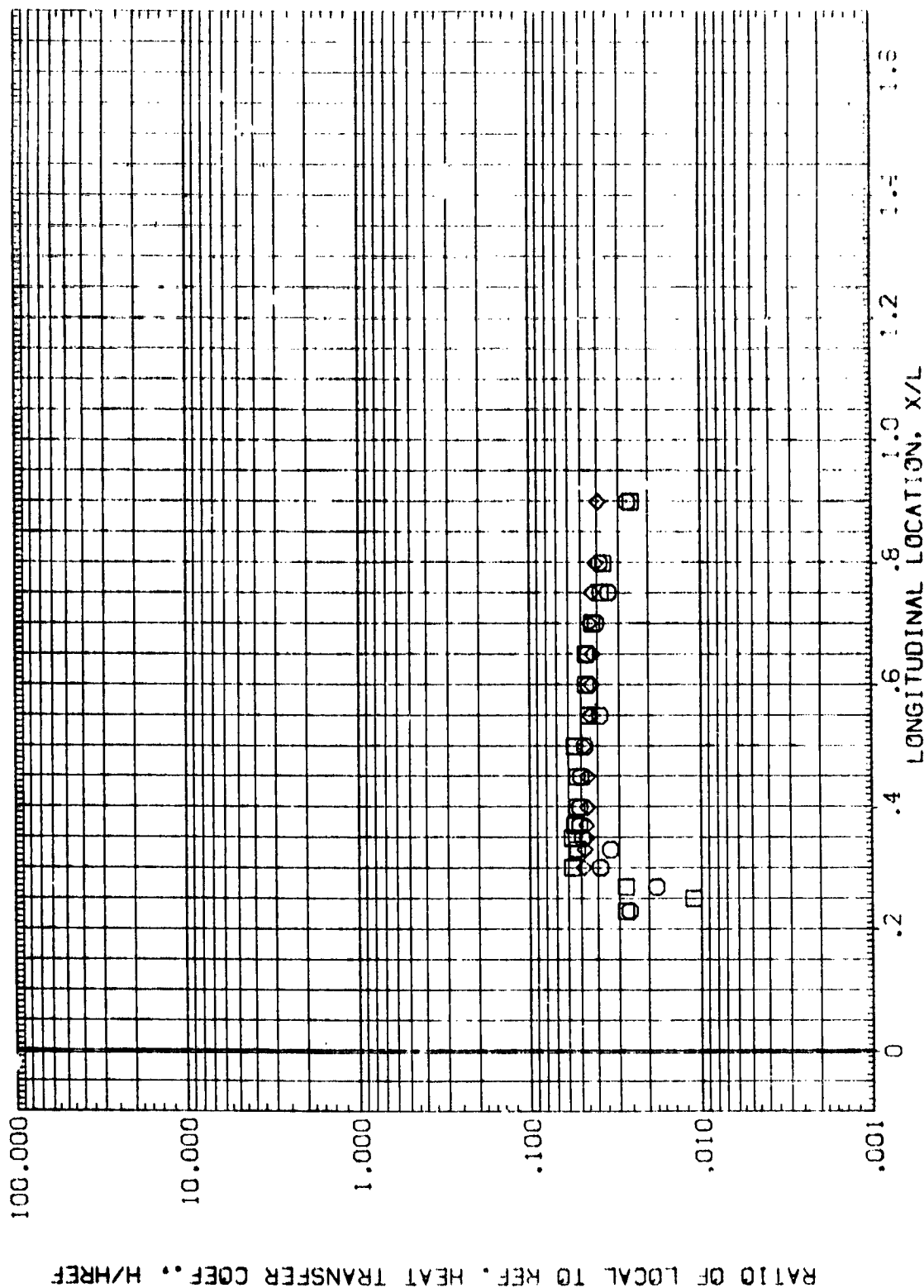


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300      HAW/HT = .900      PHI = 112.500

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (Z77FC1) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (Z77F04) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (RNB723) DATA NOT AVAILABLE

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

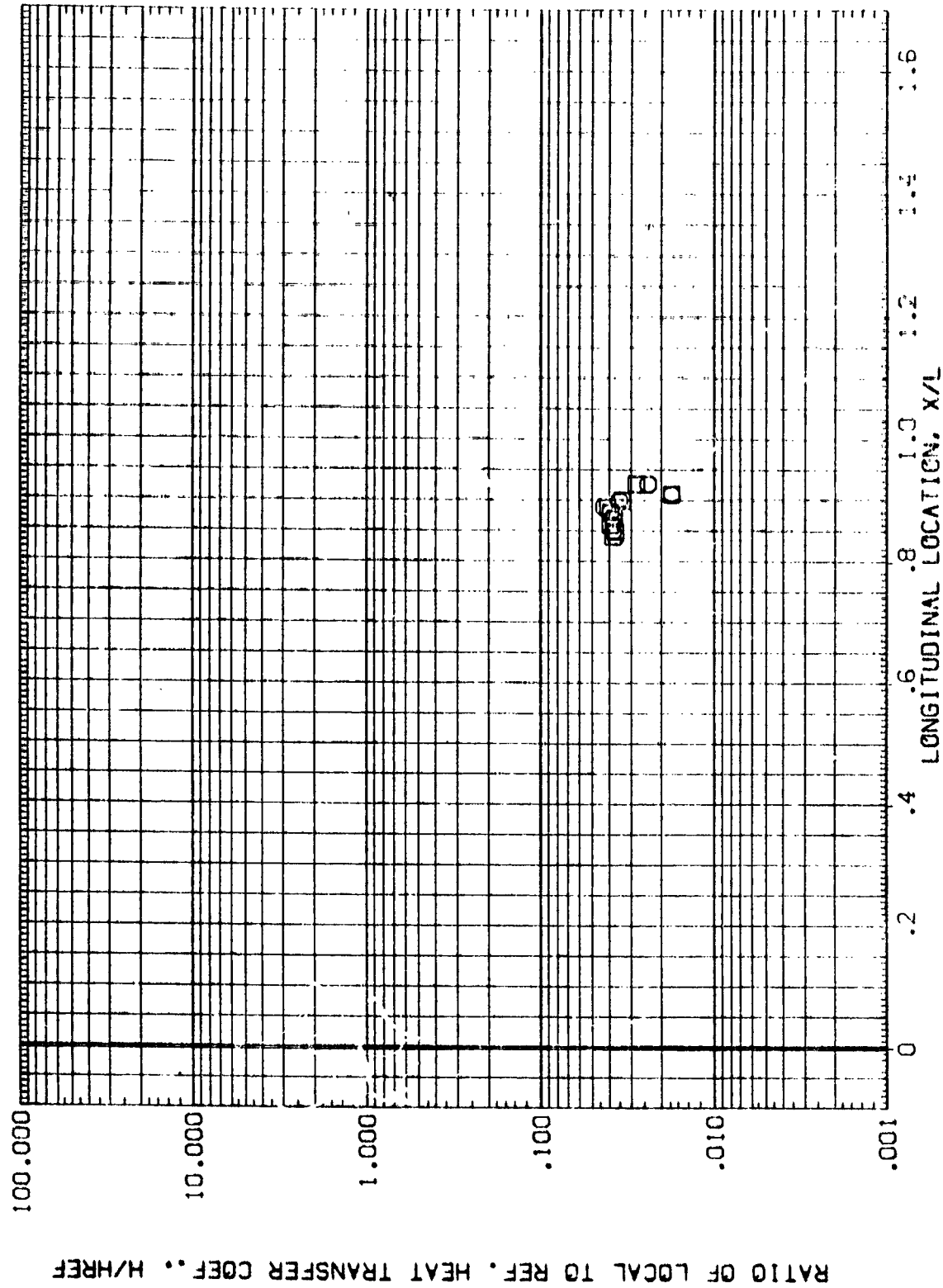


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 125.400

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZV7F01) IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (ZV7F04) IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (RNB201) DATA NOT AVAILABLE

ALPHA: BETA: RM/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

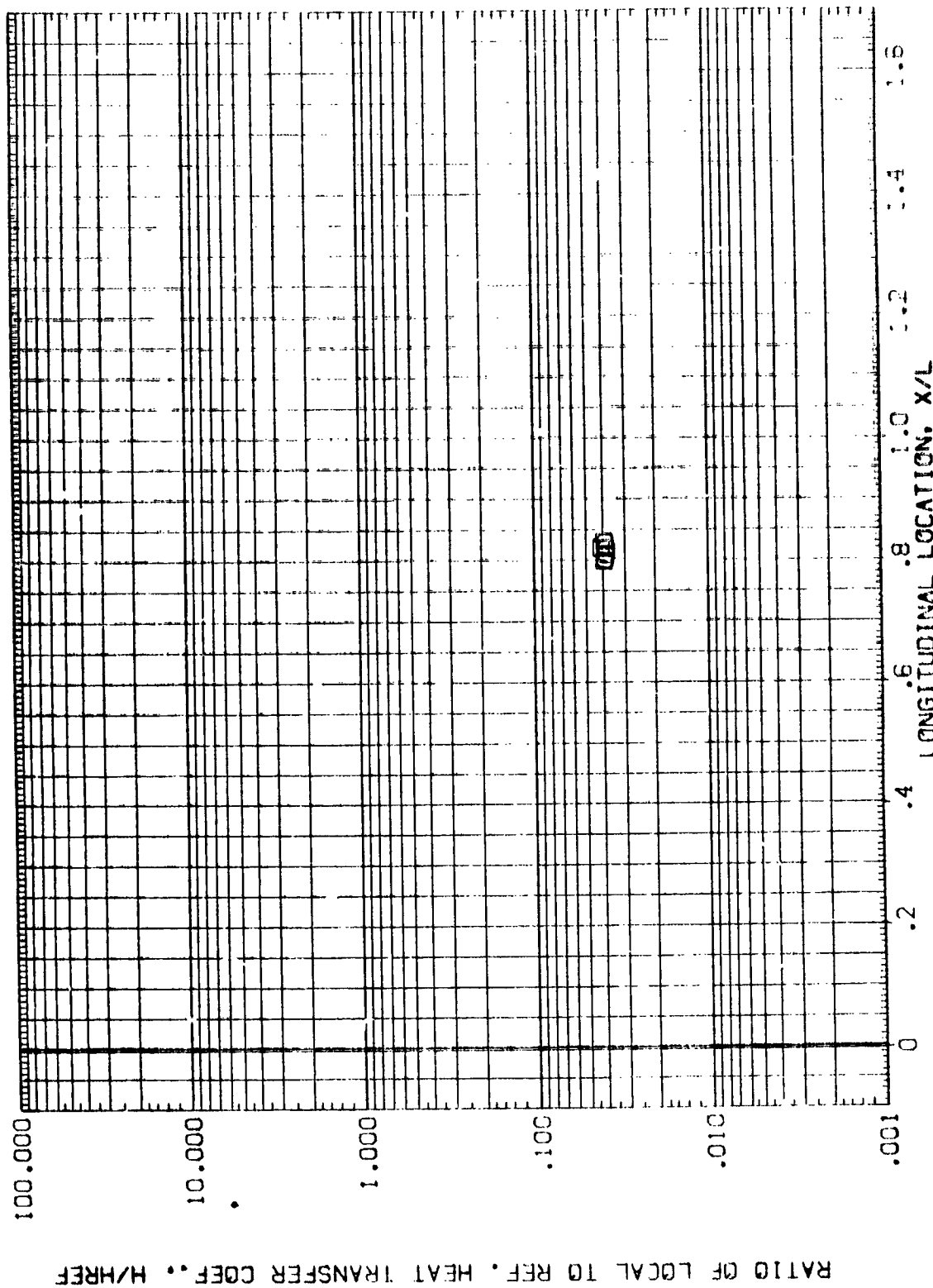


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 129.300

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      R<sub>N/L</sub>

(ZV7F01)      IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET      .000      .000      5.000

(ZV7F04)      IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET      .000      .000      5.000

(RNB720)      ARC3-5-211(IH48)ET /OGIVE /CLEAN      .000      .000      5.000

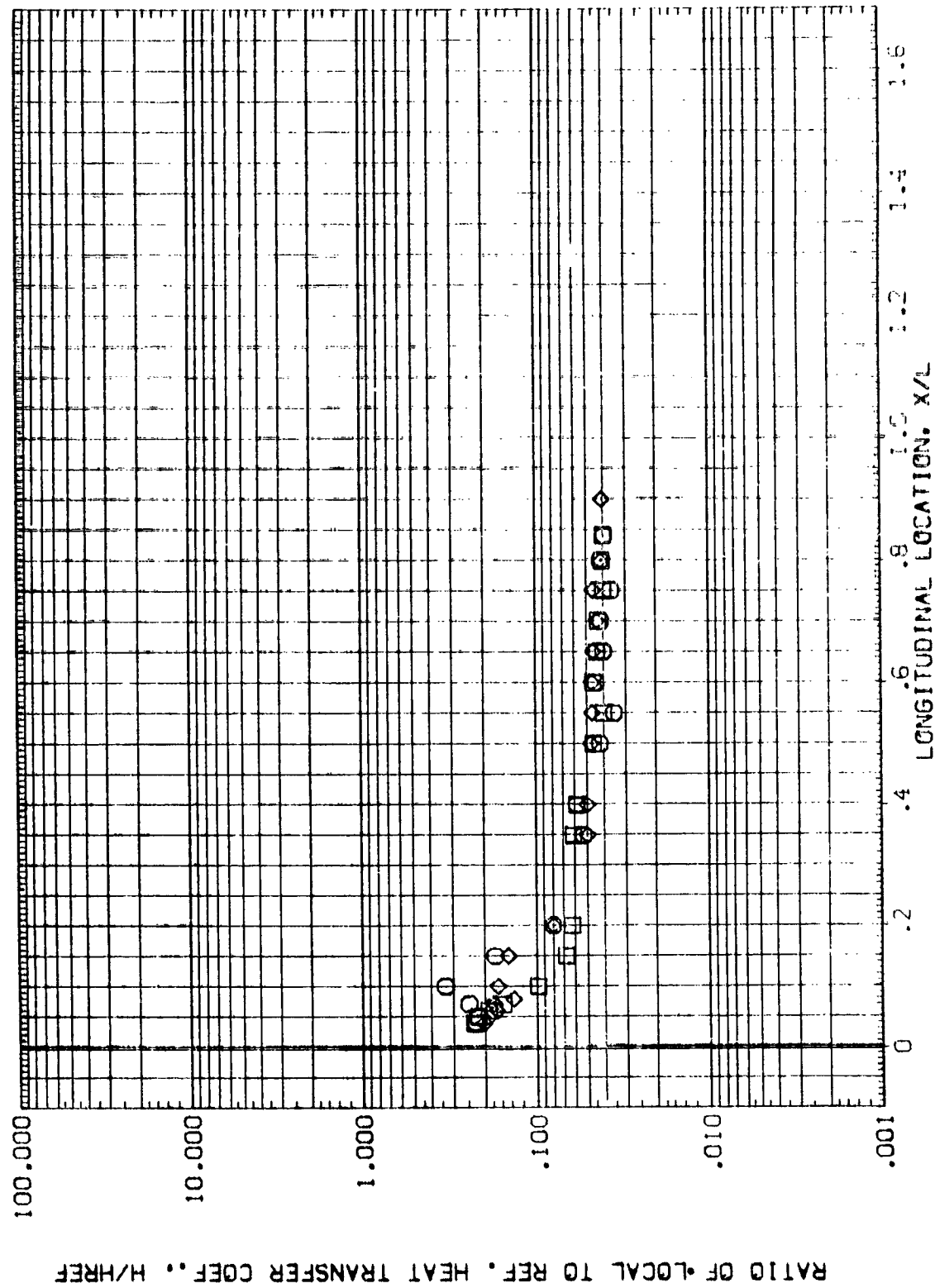


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300      HAW/HT = .900      PHI = 145.000      P-02      609

DATA SET SYMBOL CONFIGURATION DESCRIPTION ALPHA BETA PR/L

(ZV7F01) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
(ZV7F04) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
(R4BF20) ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK

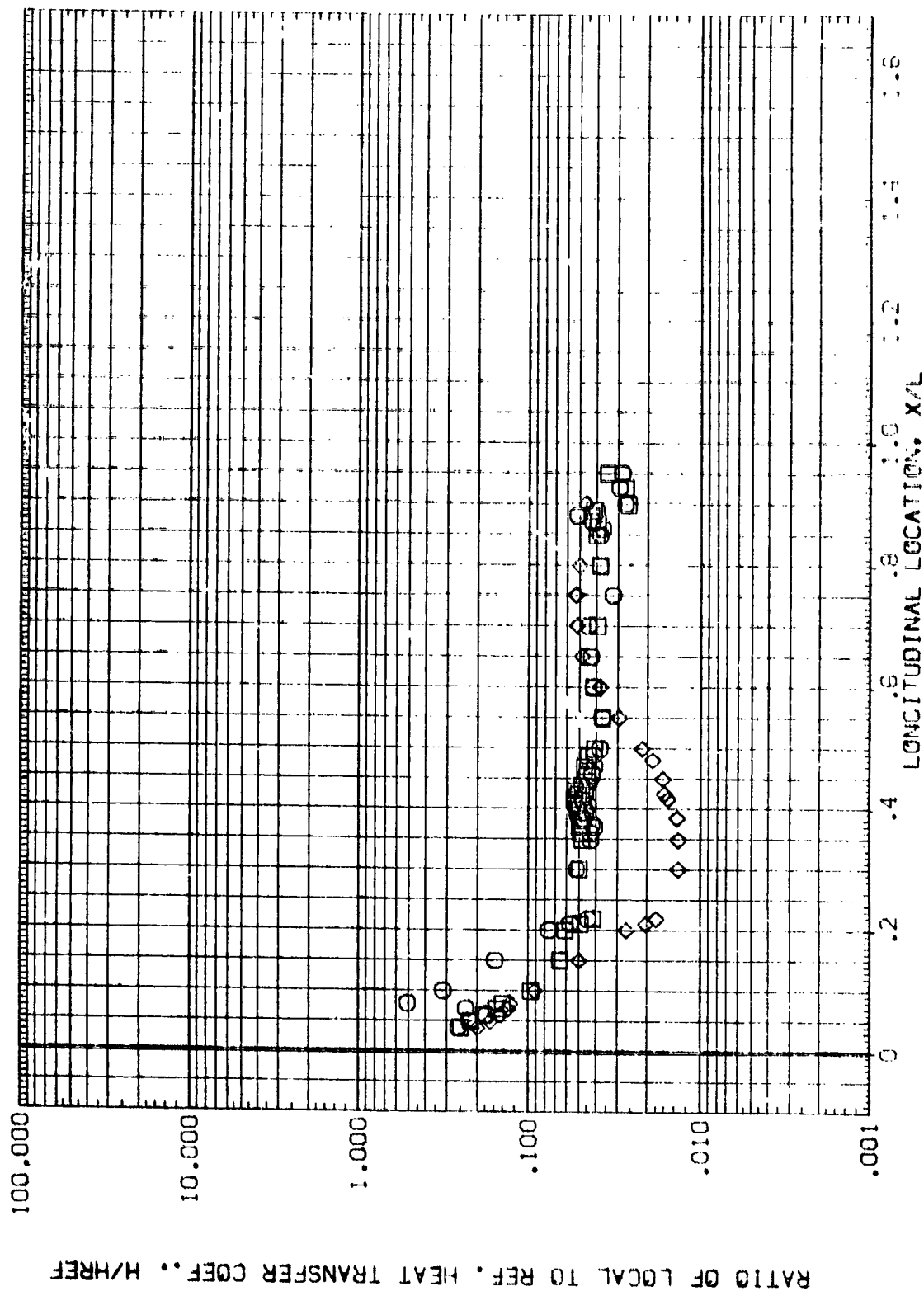


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .300 PHI = 180.000



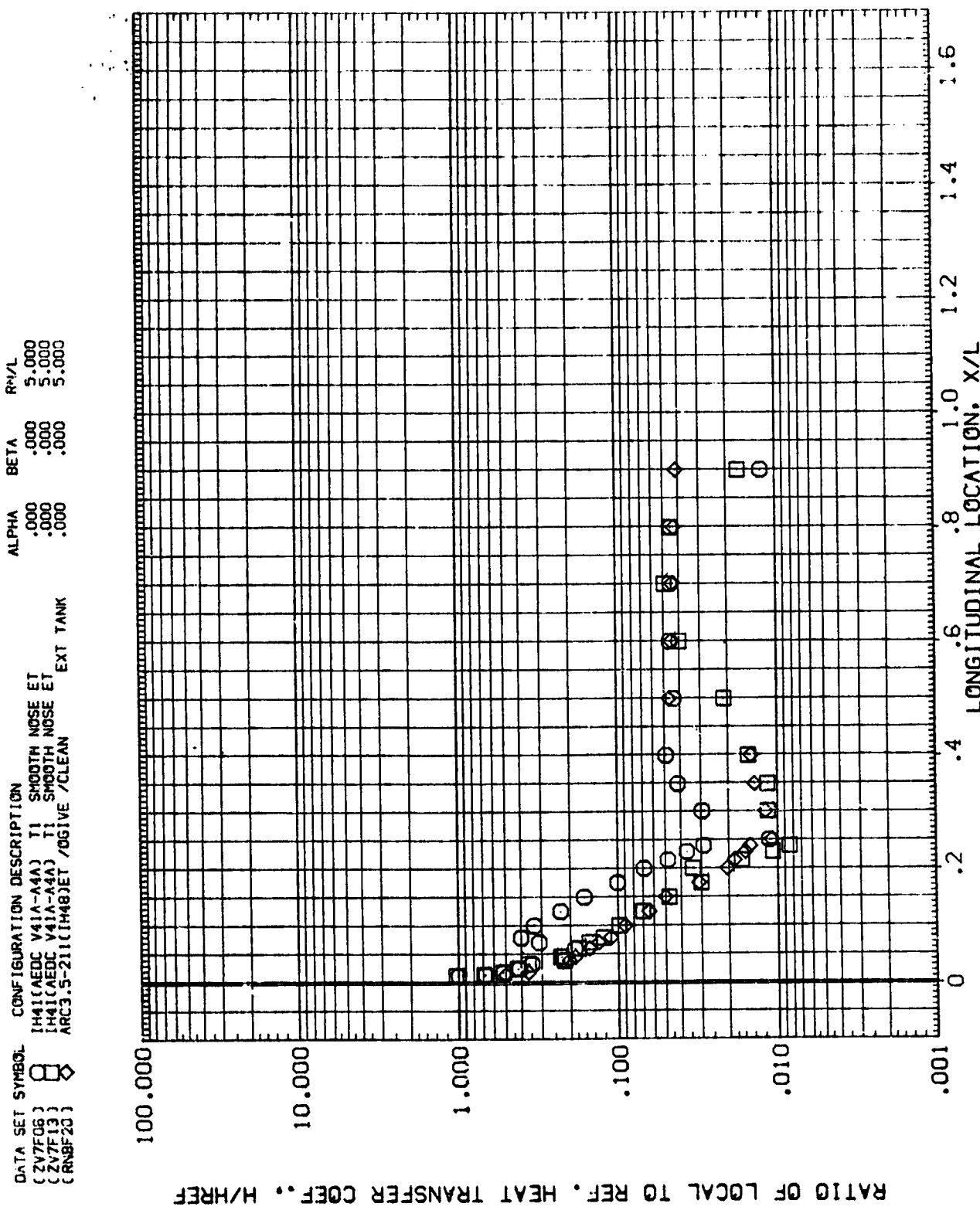


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(ZV7F06)	IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET	.000	.000	5.000
(ZV7F13)	IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET	.000	.000	5.000
(RNB720)	DATA NOT AVAILABLE			

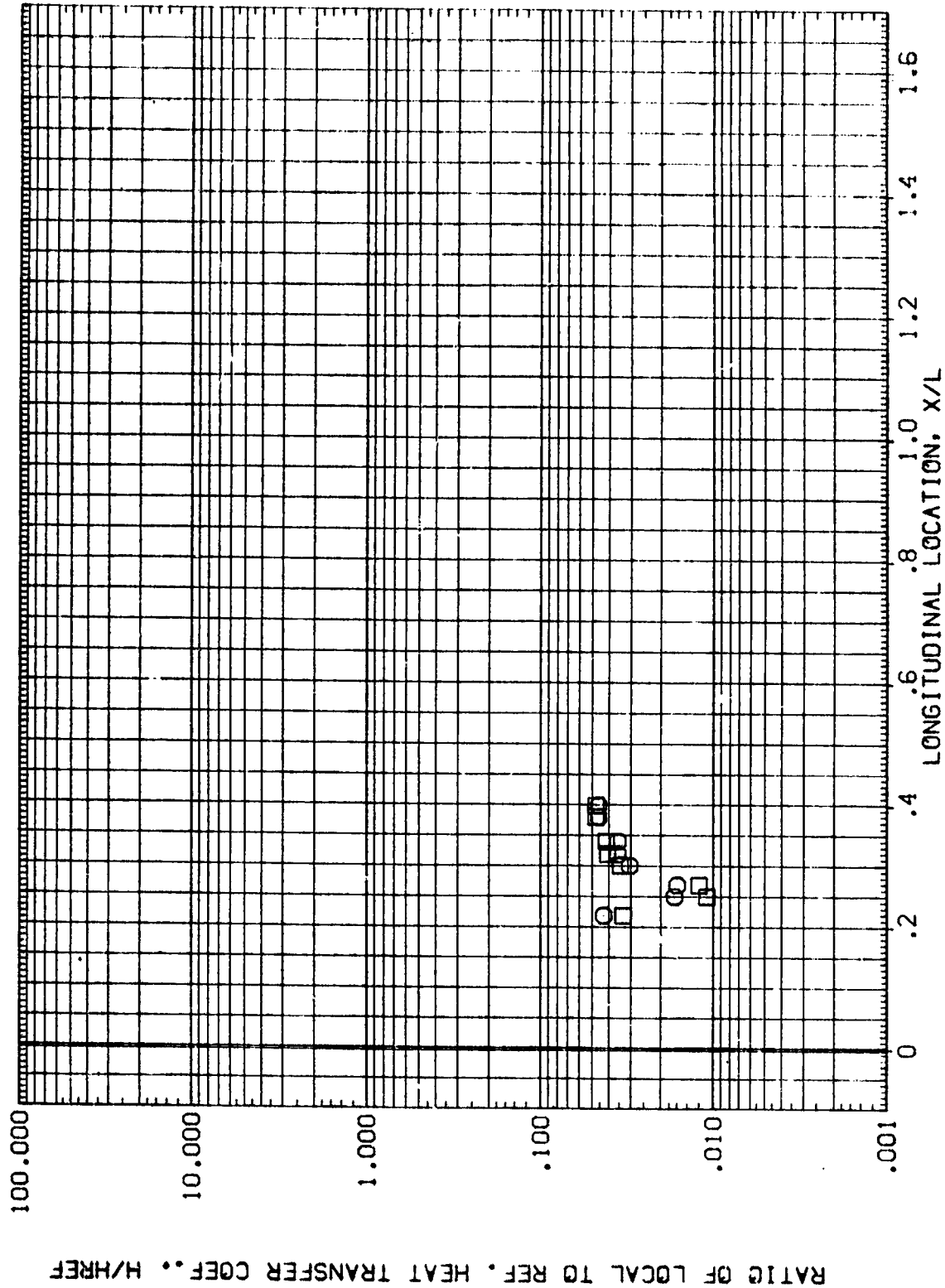


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 55.000

DATA SET SYMBOL      CONFIGURATION DESCRIPTION  
 (ZV7F06)      IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (ZV7F13)      IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (RNB20)      DATA NOT AVAILABLE

ALPHA      BETA      RN/L  
 .000      .000      5.000  
 .000      .000      5.000  
 .000      .000      5.000

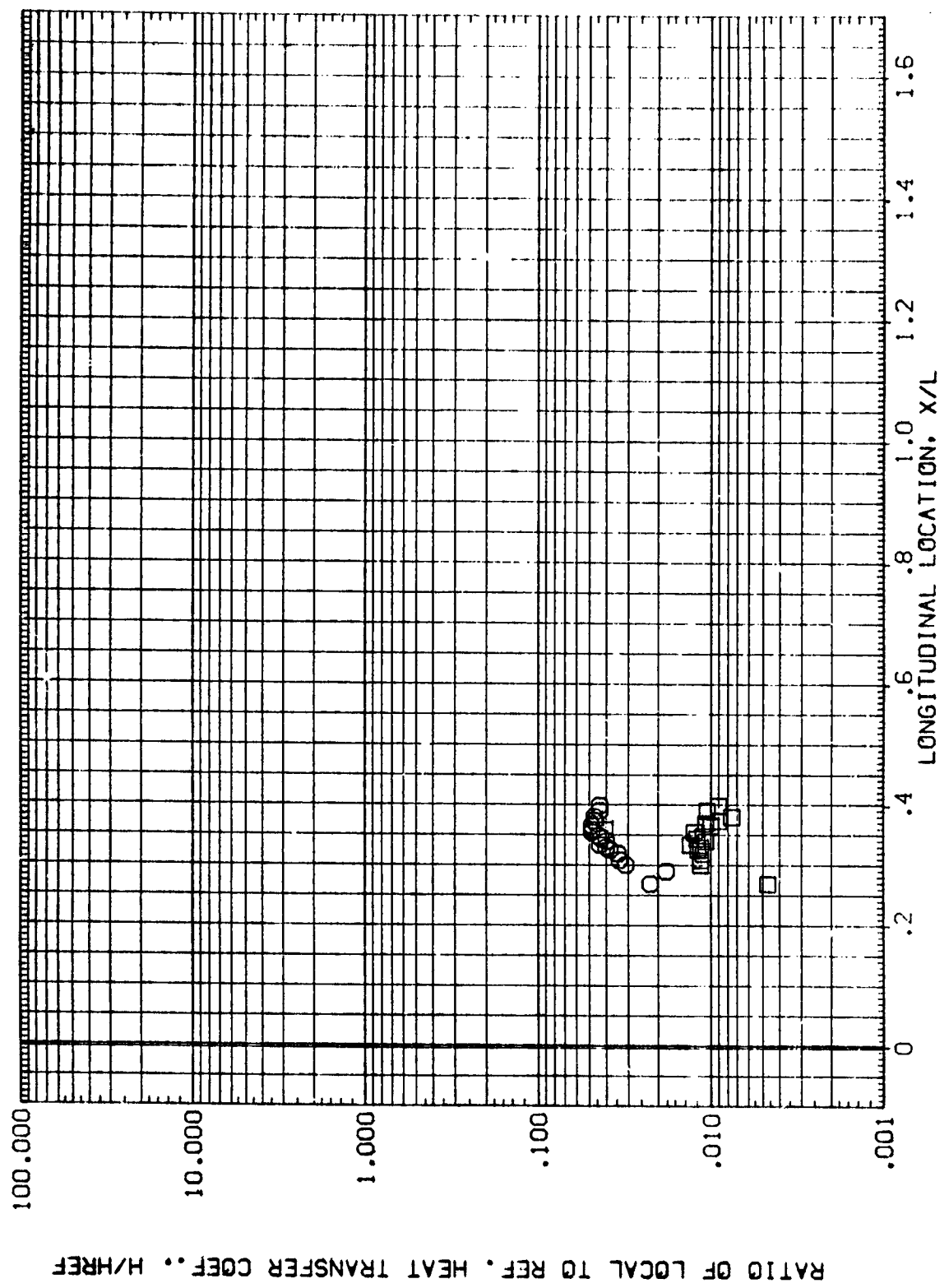


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300      HEIGHT = .900      PHI = 78.000

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	BETA	RN/L
(ZV7F06)	IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET	.000	.000	5.000
(ZV7F13)	IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET	.000	.000	5.000
(RNB20)	ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK	.000	.000	5.000

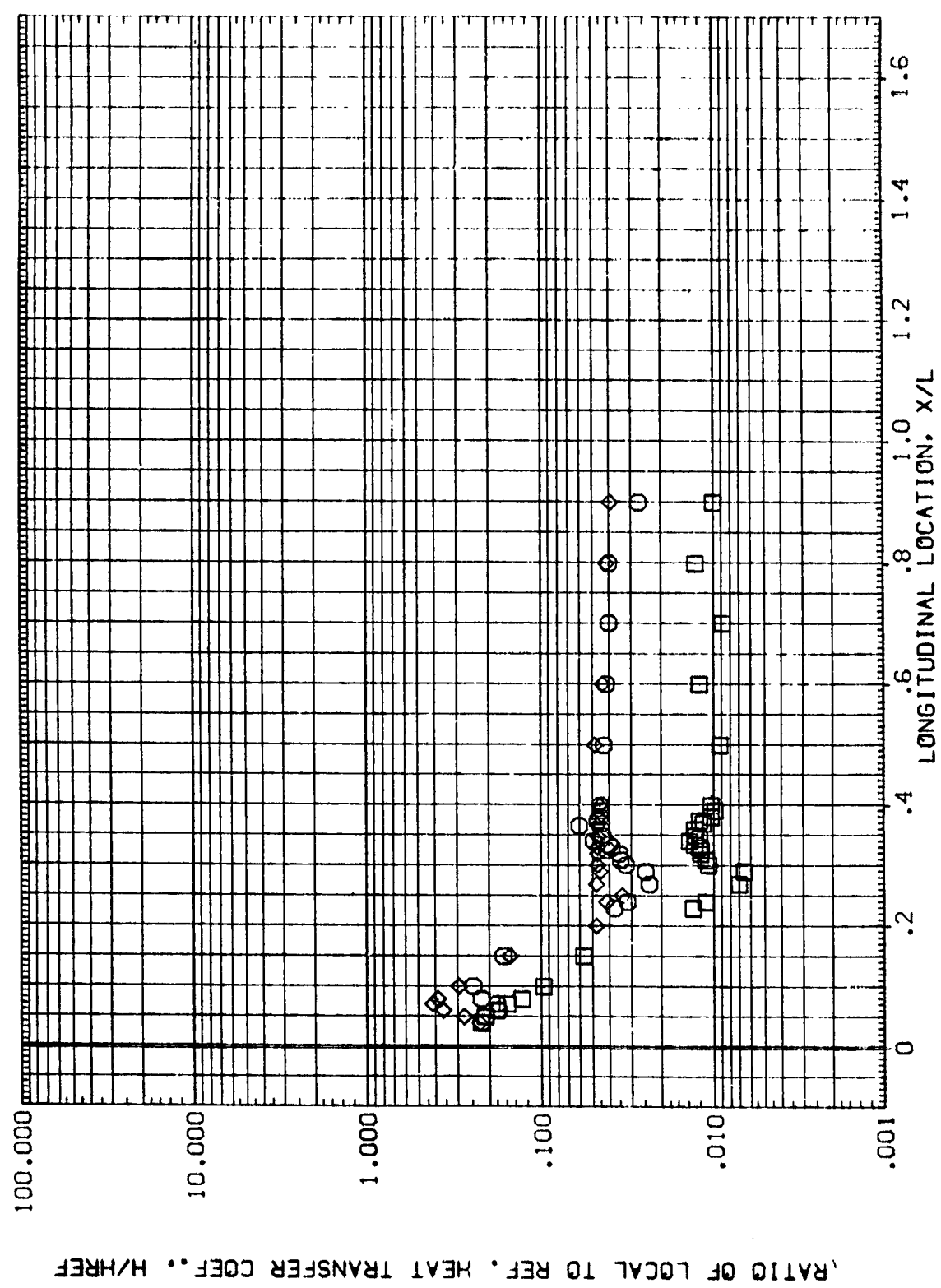


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 90.000

DATA SET SYMBOL CONFIGURATION DESCRIPTION  
 (ZV7F06) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (ZV7F13) IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (RNB20) ARC3.5-211(IH48)ET /OGIVE /CLEAN EXT TANK

ALPHA BETA RV/L  
 .000 .000 5.000  
 .000 .000 5.000  
 .000 .000 5.000

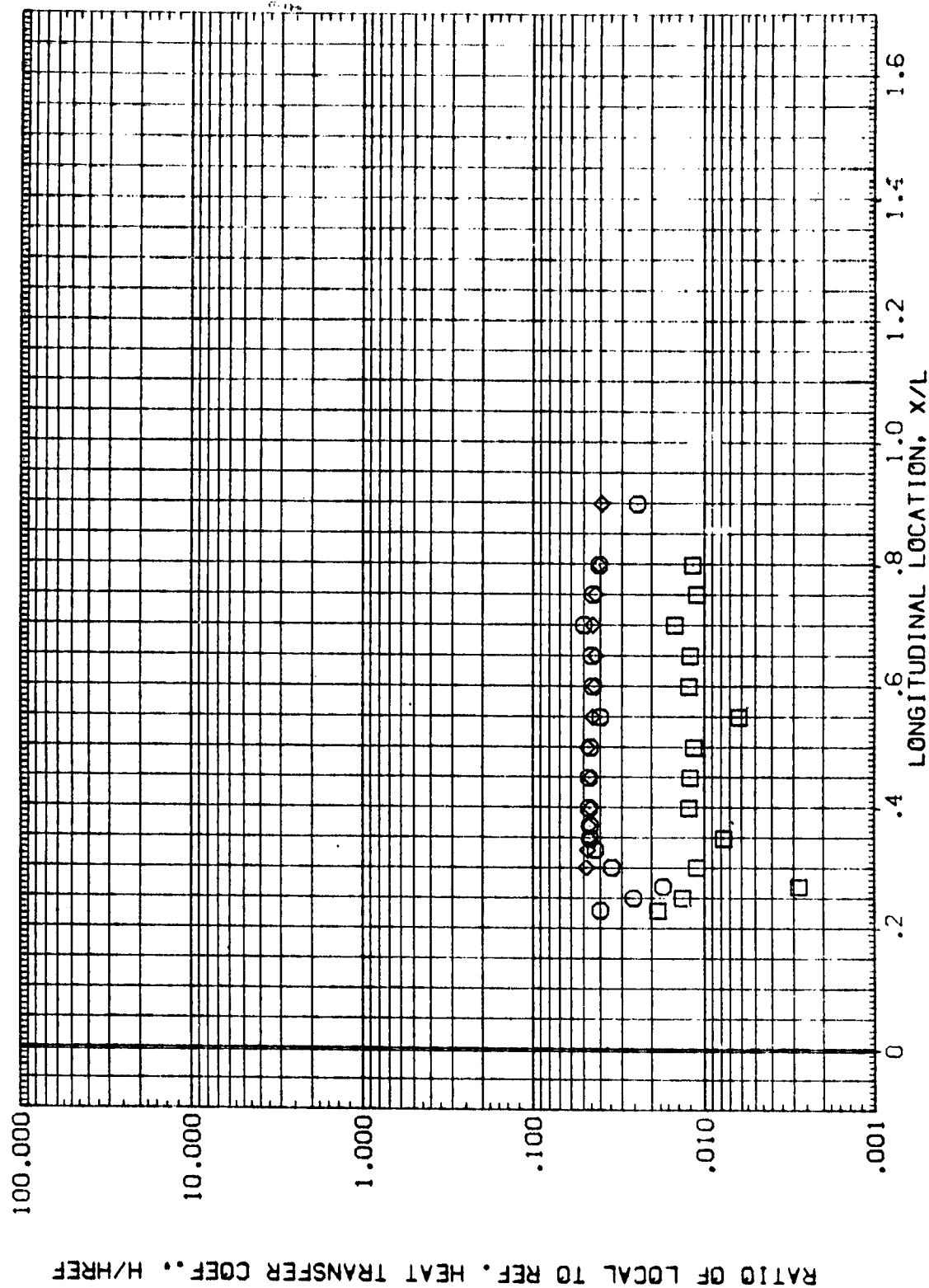


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300 HAW/HT = .900 PHI = 112.500

DATA SET SYMBOL      CONFIGURATION DESCRIPTION      ALPHA      BETA      RN/L  
 (ZV7F06)      IH41(CAEDC V41A-A4A) T1 SMOOTH NOSE ET      .000      .000      5.000  
 (ZV7F13)      IH41(CAEDC V41A-A4A) T1 SMOOTH NOSE ET      .000      .000      5.000  
 (RNB20)      DATA NOT AVAILABLE

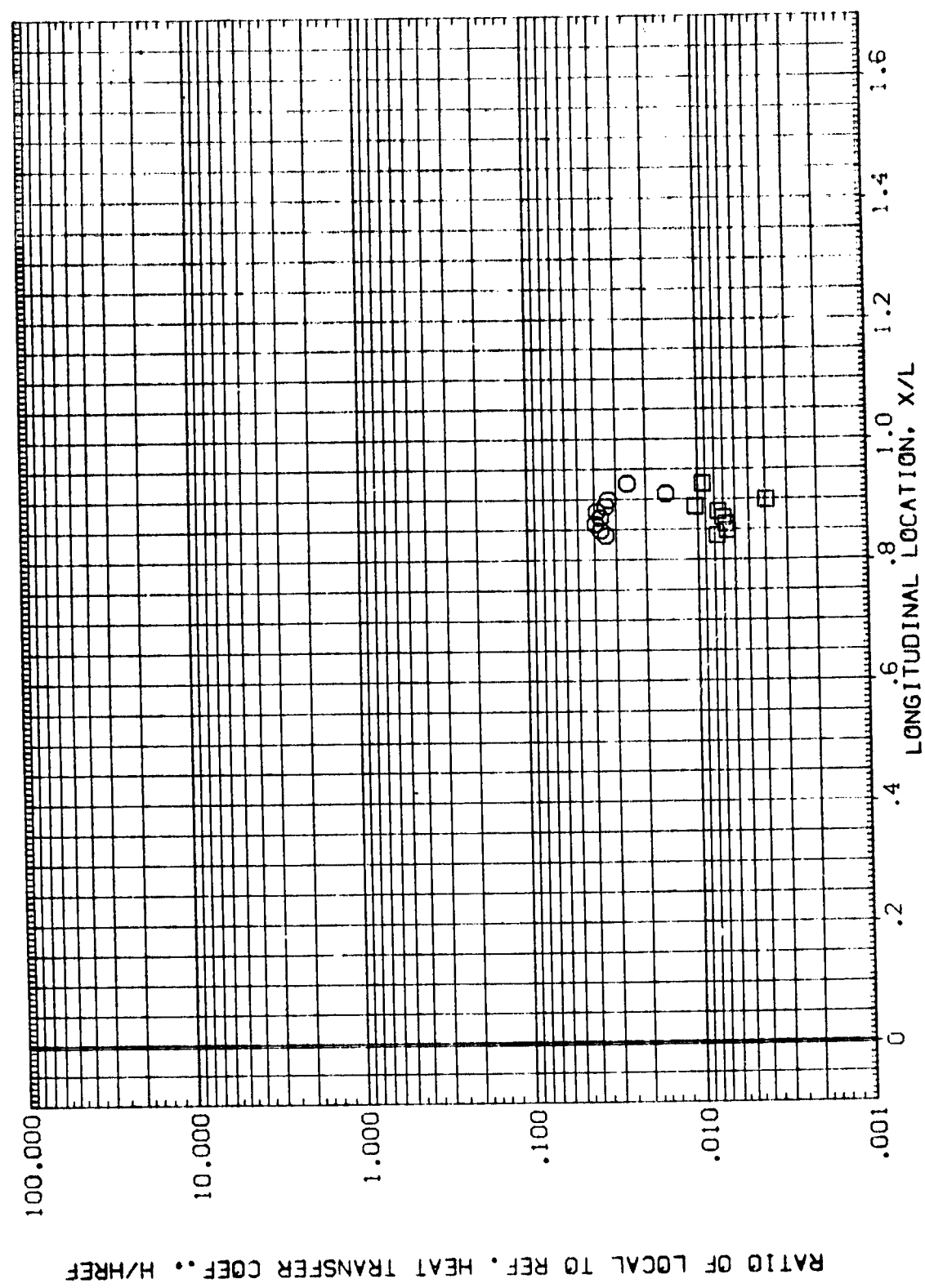


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300      HAW/HT = .900      PHI = 125.400      PAGE 616

DATA SET SYMBOL    CONFIGURATION DESCRIPTION  
 (ZV7E06)    IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (ZV7F13)    IH41CAEDC V41A-A4A) T1 SMOOTH NOSE ET  
 (RNGF20)    DATA NOT AVAILABLE

ALPHA    BETA    RN/L  
 .000    .000    5.000  
 .000    .000    5.000  
 .000    .000    5.000

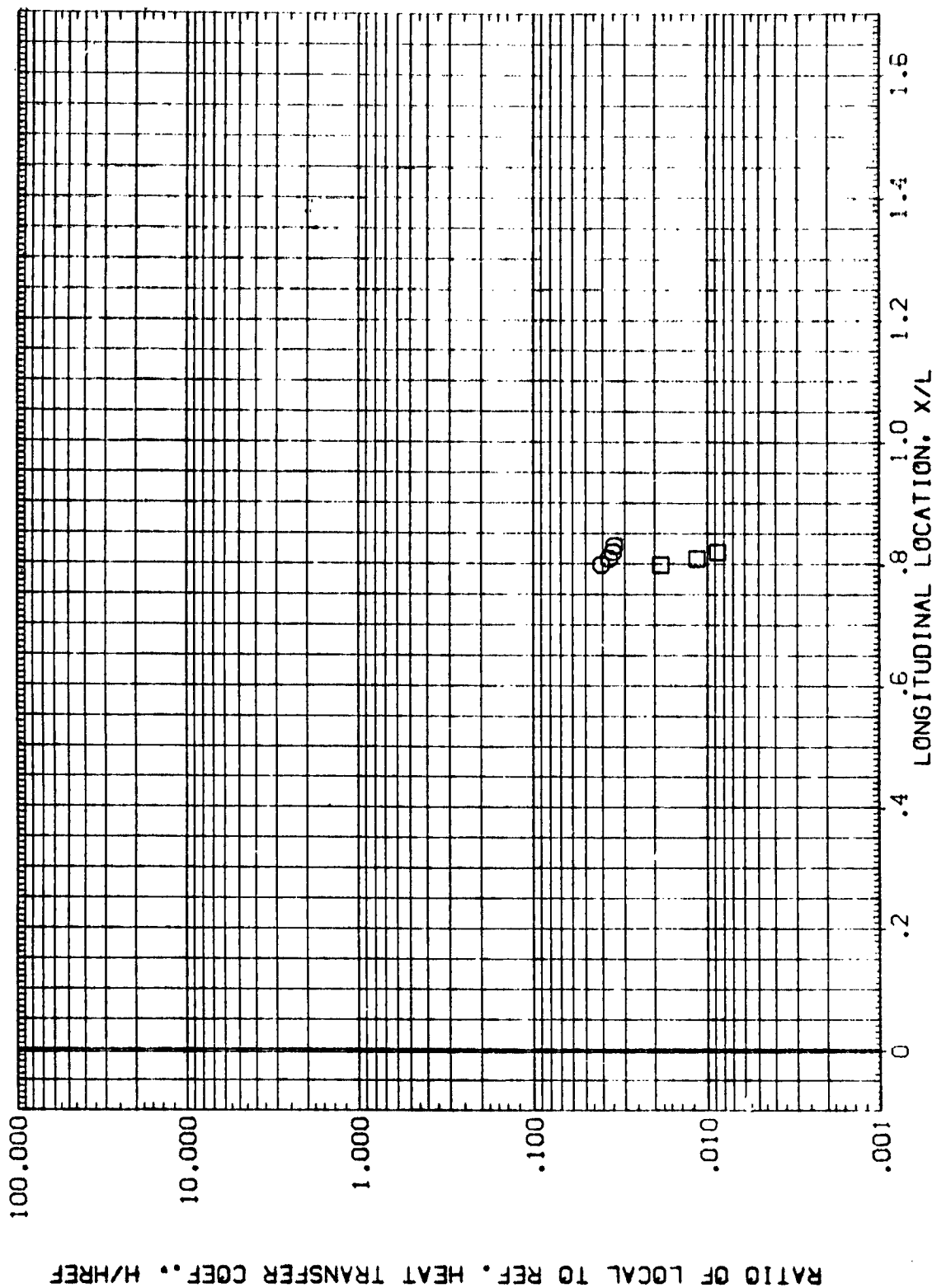


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300    HAW/HT = .900    PHI = 129.300

DATA SET SYMBOL    CONFIGURATION DESCRIPTION    ALPHA    BETA    RN/L

(ZV7F06)    IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET    .000    .000    5.000

(ZV7F13)    IH41(AEDC V41A-A4A) T1 SMOOTH NOSE ET    .000    .000    5.000

(RN8F20)    ARC3.5-211(IH48)ET /OGIVE /CLEAN    .000    .000    5.000

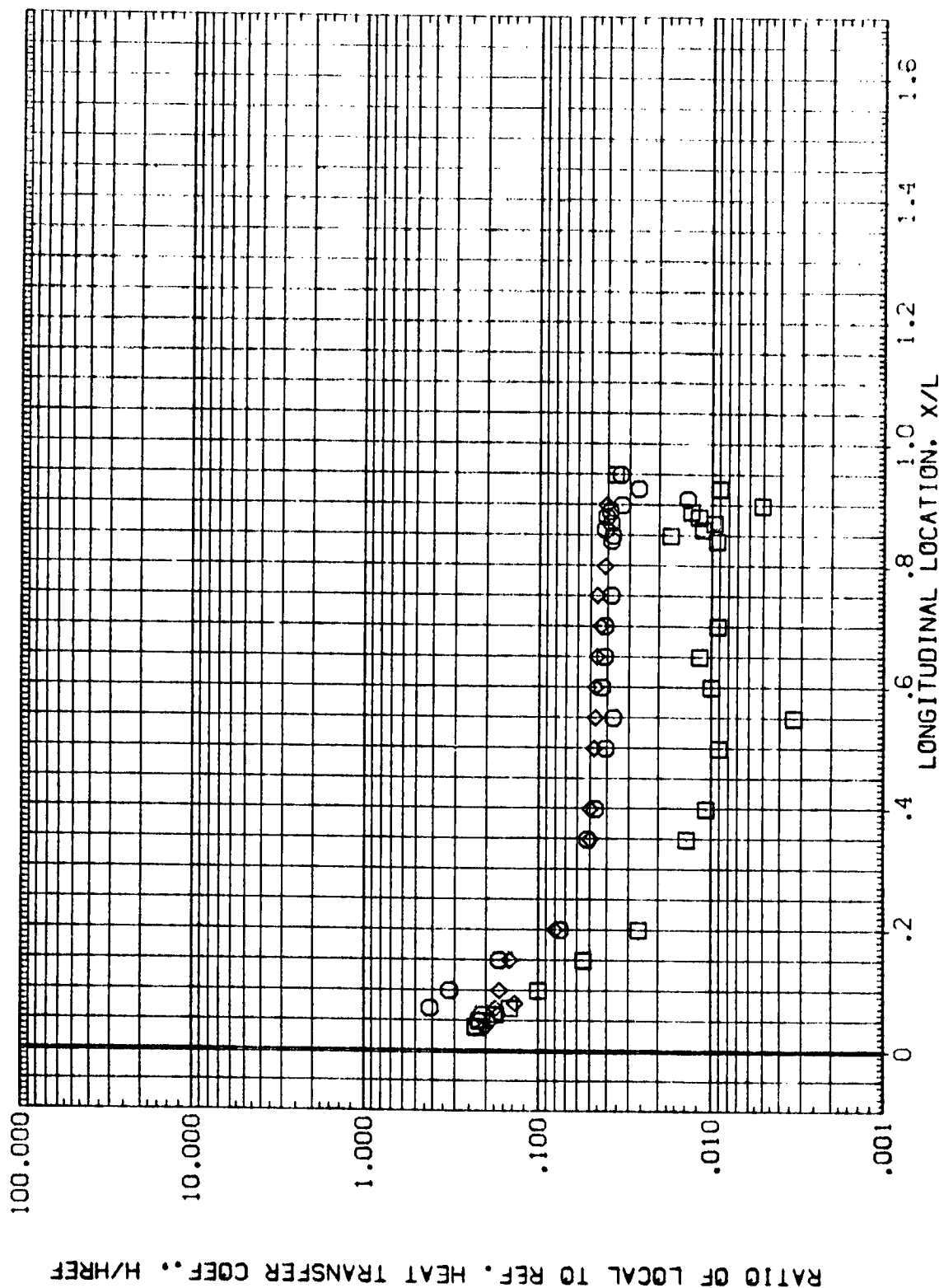


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300    HAW/HT = .900    PHI = 135.000



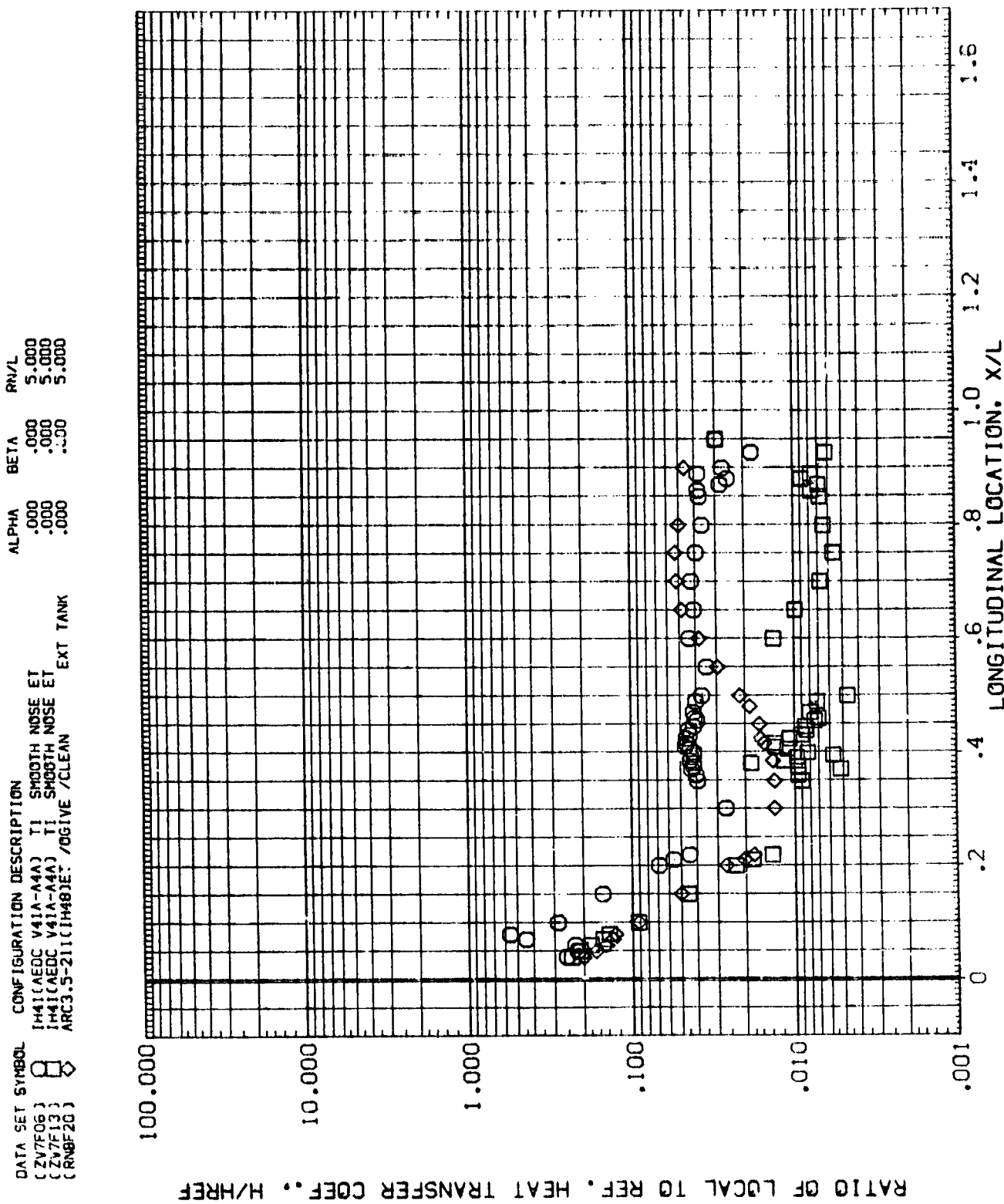


FIG. 13 IH48 COMPARISON WITH IH41, TANK WITHOUT NIPPLE NOSE

MACH = 5.300      HAW/HT = .900      PHI = 180.000

APPENDIX  
TABULATED SOURCE DATA

Tabulations of plotted data are available on request from  
Data Management Services

DATE 05 MAR 76

AMES 3.9-211 1H48

PAGE 1

ORB BOTTOM CL

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(O+S) ORB FUSE

(RNBAD1)

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 1.500

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHD SLUG/ FT3	VINF FT/SEC	SCALE
6	.0000	.0000	5.200	1.654	120.8	1255.	306.0	.1788	199.0	.7940-04	3585.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	SIN NO R=0.9
6	.00000	.00000	1.0000	.828F	1.008	1.130	31.43	26.05	.4365	556.7	.2106-01
6	.00000	.50000-02	2.0000	.5199	.6319	.7082	31.47	16.36	.4359	555.9	.1321-01
6	.00000	.10000-01	3.0000	.3292	.4000	.4482	31.51	10.37	.4352	554.9	.8362-02
6	.00000	.20000-01	4.0000	.1485	.1804	.2021	31.58	4.691	.4339	553.4	.3772-02
6	.00000	.30000-01	5.0000	.7999-01	.9713-01	1.088	31.63	2.531	.4331	552.2	.2031-02
6	.00000	.50000-01	7.0000	.6569-01	.7974-01	.8929-01	31.67	2.081	.4324	551.4	.1657-02
6	.00000	.60000-01	8.0000	.5948-01	.7220-01	.8084-01	31.69	1.895	.4321	551.1	.1510-02
6	.00000	.70000-01	9.0000	.3181-01	.5851-01	.4323-01	31.69	1.008	.4321	551.0	.8074-03
6	.00000	.80000-01	10.000	.2570-01	.3118-01	.3491-01	31.72	.8152	.4315	550.3	.6520-03
6	.00000	.90000-01	11.000	.4898-01	.5943-01	.6653-01	31.73	1.554	.4314	550.1	.1243-02
6	.00000	.10000+03	12.000	.5452-01	.1025	.1148	31.74	2.683	.4312	549.9	.2144-02
6	.00000	.14000	15.000	.1146	.1391	.1557	31.75	3.639	.4311	549.7	.2308-02
6	.00000	.15000	16.000	.1011	.1226	.1372	31.74	3.208	.4311	549.6	.2564-02
6	.00000	.16000	17.000	.6714-01	.1057	.1183	31.75	2.767	.4311	549.7	.2211-02
6	.00000	.17000	18.000	.1040	.1262	.1412	31.74	3.300	.4313	549.9	.2536-02
6	.00000	.18000	19.000	.1008	.1223	.1369	31.73	3.196	.4314	550.2	.2557-02
6	.00000	.19000	20.000	.7732-01	.9382-01	1.050	31.73	2.453	.4315	550.2	.1952-02
6	.00000	.20000	21.000	.5534-01	.6715-01	.7517-01	31.73	1.756	.4315	550.2	.1404-02
6	.00000	.22500	22.000	.7-23-01	.9314-01	1.009	31.72	2.356	.4315	550.2	.1836-02
6	.00000	.25000	23.000	.7005-01	.8500-01	.9516-01	31.72	2.223	.4315	550.2	.1777-02
6	.00000	.30000	24.000	.6081-01	.9806-01	1.098	31.73	2.554	.4314	550.1	.2050-02
6	.00000	.35000	25.000	.6497-01	.7880-01	.8819-01	31.78	2.065	.4305	549.9	.1648-02
6	.00000	.40000	26.000	.7759-01	.9417-01	1.054	31.68	2.458	.4322	551.2	.1939-02
6	.00000	.45000	27.000	.5804-01	.7043-01	.7884-01	31.72	1.841	.4315	550.2	.1473-02
6	.00000	.50000	28.000	.6310-01	.7657-01	.8572-01	31.72	2.001	.4316	550.4	.1601-02
6	.00000	.55000	29.000	.4120-01	.4999-01	.5596-01	31.73	1.307	.4313	550.0	.1046-02
6	.00000	.60000	30.000	.5368-01	.6514-01	.7232-01	31.72	1.703	.4315	550.3	.1362-02

(PREFAB)

AMES 3.5-211 1148

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0.5) ORB FUSE

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/MREF R=1.0	H/MREF R=0.9	H/MREF R=0.85	OREF BTU/ F12SEC	ODOT BTU/ F12SEC	M/MF	TM DEG. R	STN NO R=0.9
6	.00000	.65000	31.000	.3035-01	.3683-01	.4123-01	31.75	.9640	.4310	549.6	.7702-03
6	.00000	.70000	32.000	.4018-01	.4875-01	.5457-01	31.74	1.276	.4312	549.8	.1019-02
6	.00000	.75000	33.000	.6706-01	.8134-01	.9104-01	31.78	2.131	.4306	549.1	.1701-02
6	.00000	.80000	34.000	.1188	.1441	.1613	31.77	3.775	.4306	549.1	.3014-02
6	.00000	.85000	35.000	.9628-01	.1168	.1307	31.81	3.062	.4301	548.4	.2442-02
6	.00000	.90000	36.000	.2563-01	.3110-01	.3481-01	31.72	.8130	.4315	550.3	.6502-03
6	.00000	.92500	37.000	.1436-01	.1743-01	.1952-01	31.68	.4548	.4323	551.3	.3644-03
6	.00000	.95000	38.000	.8617-02	.1046-01	.1172-01	31.62	.2724	.4334	552.6	.2168-03
6	.00000	.97500	39.000	.2988-02	.3627-02	.4061-02	31.68	.9467-01	.4323	551.2	.7584-04

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AMES 3.5-211 1M48

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ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(O+S) ORB FUSE

(P00002)

ORB BOTTOM CL

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RV/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	MT BTU/ LBM	PI/F PSIA	TINF DEG. R	RND SLUG/ FT3	VINE FT/SEC	SCALE
4	.0000	.0000	5.300	4.839	4.3.8	1345.	329.2	.5445	207.3	.2204-03	3740.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	ODOT BTU/ FT2SEC	H/M/HT	TM DEG. R	STN NO R=0.9
4	.00000	.00000	1.0000	.8935	1.080	1.206	62.28	55.64	.4203	576.9	.1329-01
4	.00000	.50000-02	2.0000	.5507	.6773	.7559	62.44	35.01	.4190	574.9	.8339-02
4	.00000	.10000-01	3.0000	.3520	.4369	.4874	62.66	22.68	.4171	572.2	.5360-02
4	.00000	.20000-01	4.0000	.1659	.1999	.2228	63.02	10.45	.4139	567.6	.2451-02
4	.00000	.30000-01	5.0000	.9217-01	.1110	.1237	63.26	5.831	.4116	564.7	.1358-02
4	.00000	.40000-01	7.0000	.1041	.1253	.1396	63.45	6.604	.4095	562.4	.1544-02
4	.00000	.50000-01	9.0000	.1016	.1223	.1362	63.60	6.453	.4093	561.7	.1507-02
4	.00000	.70000-01	9.0000	.7216-01	.8587-01	.9672-01	63.53	4.595	.4092	561.3	.1571-02
4	.00000	.80000-01	10.000	.5473-01	.6586-01	.7331-01	63.65	3.484	.4083	559.8	.1513-02
4	.00000	.90000-01	11.000	.6920-01	.8325-01	.9265-01	63.72	4.409	.4075	559.0	.1505-02
4	.00000	.10000-00	12.000	.1315	.1581	.1760	63.77	8.394	.4071	559.5	.1548-02
4	.00000	.13000	14.000	.2561	.3081	.3428	63.78	16.33	.4070	558.2	.1795-02
4	.00000	.14000	15.000	.1472	.1770	.1970	63.81	9.393	.4057	557.9	.2181-02
4	.00000	.15000	16.000	.1248	.1500	.1670	63.82	7.562	.4055	557.9	.1573-02
4	.00000	.16000	17.000	.1188	.1429	.1590	63.84	7.594	.4054	557.6	.1780-02
4	.00000	.17000	18.000	.1592	.1915	.2131	63.83	10.16	.4055	557.5	.2359-02
4	.00000	.18000	19.000	.1676	.2015	.2242	63.84	10.70	.4054	557.3	.2463-02
4	.00000	.19000	20.000	.1233	.1483	.1650	63.84	7.873	.4055	557.3	.1627-02
4	.00000	.20000	21.000	.9592-01	.1154	.1284	63.84	6.123	.4055	557.6	.1421-02
4	.00000	.22500	22.000	.1195	.1425	.1586	63.92	7.577	.4057	555.5	.1735-02
4	.00000	.25000	23.000	.1207	.1451	.1614	63.96	7.720	.4054	555.1	.1739-02
4	.00000	.30000	24.000	.1183	.1422	.1582	63.99	7.559	.4051	555.7	.1732-02
4	.00000	.35000	25.000	.1005	.1208	.1344	64.07	6.441	.4043	554.7	.1788-02
4	.00000	.40000	26.000	.1079	.1298	.1444	63.88	6.836	.4050	557.0	.1533-02
4	.00000	.45000	27.000	.8283-01	.9952-01	.1108	64.04	5.308	.4045	555.1	.1227-02
4	.00000	.50000	28.000	.8697-01	.1044	.1162	63.99	5.559	.4050	555.7	.1280-02
4	.00000	.55000	29.000	.6008-01	.7220-01	.8030-01	64.07	3.849	.4043	554.7	.2355-03

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AMES 3.5-211 1148

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17084323

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(10-S) ORB FUSE

RUN NUMBER	PH	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BITU/ FT2SEC	COOT BITU/ FT2SEC	H/HNT	TW DEG. R	SIN NO R=0.9
4	.00000	.60000	30.000	.7204-01	.8659-01	.9631-01	64.01	4.611	.4049	555.4	.1367-02
4	.00000	.65000	31.000	.4786-01	.5751-01	.6395-01	64.15	3.070	.4037	553.8	.7085-03
4	.00000	.70000	32.000	.5888-01	.7077-01	.7871-01	64.04	3.771	.4046	555.1	.8719-03
4	.00000	.75000	33.000	.1521	.1827	.2032	64.19	9.764	.4033	553.3	.2252-02
4	.00000	.80000	34.000	.2026	.2435	.2707	64.14	13.00	.4037	553.9	.3100-02
4	.00000	.85000	35.000	.9363-01	.1125	.1250	64.23	6.014	.4029	552.8	.1386-02
4	.00000	.90000	36.000	.2935-01	.3530-01	.3928-01	63.76	1.871	.4071	558.5	.4349-03
4	.00000	.92500	37.000	.1700-01	.2047-01	.2279-01	63.49	1.080	.4036	561.9	.2521-03
4	.00000	.95000	38.000	.9169-02	.1105-01	.1231-01	63.16	.5791	.4125	565.9	.1361-03
4	.00000	.97500	39.000	.3981-02	.4792-02	.5336-02	63.49	.2527	.4096	561.9	.5903-04

(R88A03)

DATE 05 MAR 76

AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0.5) ORB FUSE

ORB BOTTOM CL

PARAMETRIC DATA

ALPHA = -5.000 BETA = .0800 RV/L = 5.200

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
21	-5.000	.0000	5.300	4.773	405.4	1339.	327.7	.5336	206.3	.2170-03	3732.	.1730-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H/HREF	TW DEG. R	STN NO R=0.9	
21	.00000	.00000	1.0000	1.043	1.264	1.413	60.64	63.26	.4269	583.0	.1567-01	
21	.00000	.50000-02	2.0000	.6875	.8324	.9304	60.80	41.80	.4255	581.1	.1032-01	
21	.00000	.10000-01	3.0000	.4759	.5757	.6432	61.02	29.04	.4235	578.3	.7138-02	
21	.00000	.20000-01	4.0000	.2300	.2780	.3103	61.38	14.12	.4202	573.9	.3447-02	
21	.00000	.30000-01	5.0000	.1430	.1726	.1926	61.62	8.811	.4180	570.8	.2141-02	
21	.00000	.40000-01	6.0000	.1740	.2100	.2342	61.83	10.76	.4161	568.2	.2605-02	
21	.00000	.50000-01	7.0000	.1657	.1999	.2229	61.88	10.25	.4156	567.6	.2479-02	
21	.00000	.60000-01	8.0000	.1222	.1474	.1644	61.92	7.568	.4153	567.1	.1829-02	
21	.00000	.70000-01	9.0000	.9059-01	.1092	.1218	62.06	5.622	.4140	565.4	.1355-02	
21	.00000	.80000-01	10.000	.8253-01	.9949-01	.1109	62.11	5.126	.4135	564.7	.1234-02	
21	.00000	.90000-01	11.000	.7238-01	.8724-01	.9722-01	62.15	4.498	.4131	564.2	.1082-02	
21	.00000	.10000+00	12.000	.2777	.3347	.3730	62.20	17.27	.4127	563.6	.4152-02	
21	.00000	.13000	14.000	.1865	.2248	.2505	62.23	11.61	.4125	563.3	.2789-02	
21	.00000	.14000	15.000	.1583	.1908	.2126	62.23	9.851	.4125	563.3	.2367-02	
21	.00000	.15000	16.000	.1689	.2036	.2268	62.25	10.52	.4123	563.0	.2526-02	
21	.00000	.16000	17.000	.1316	.1586	.1767	62.24	8.191	.4123	563.1	.1988-02	
21	.00000	.17000	18.000	.1128	.1359	.1515	62.26	7.023	.4122	562.9	.1687-02	
21	.00000	.18000	19.000	.1016	.1224	.1364	62.25	6.324	.4123	563.0	.1519-02	
21	.00000	.19000	20.000	.1152	.1389	.1547	62.25	5.924	.4123	563.0	.1723-02	
21	.00000	.20000	21.000	.9502-01	.1145	.1275	62.34	7.173	.4114	561.8	.1420-02	
21	.00000	.22500	22.000	.1226	.1477	.1645	62.37	7.646	.4111	561.4	.1832-02	
21	.00000	.25000	23.000	.1423	.1714	.1909	62.41	8.882	.4108	561.0	.2127-02	
21	.00000	.30000	24.000	.1049	.1263	.1407	62.39	6.543	.4110	561.2	.1567-02	
21	.00000	.35000	25.000	.1220	.1470	.1638	62.25	7.595	.4123	563.0	.1824-02	
21	.00000	.40000	26.000	.8961-01	.1079	.1202	62.43	5.594	.4106	560.7	.1339-02	
21	.00000	.45000	27.000	.9049-01	.1090	.1214	62.37	5.644	.4111	561.4	.1353-02	
21	.00000	.50000	28.000	.7941-01	.9563-01	.1065	62.46	4.960	.4103	560.4	.1187-02	
21	.00000	.55000	29.000									

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OF POOR QUALITY

(PABA03)

AMES 3.5-211 1148

DATE 05 MAR 76

ARC3.5-211 (1148)OTS/NIPPLE/P/TRIP(0.5) ORB FUSE

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	OOT BTU/ FT2SEC	M/HHT	TN DEG. R	STN NO R=0.9
21	.00000	.60000	30.000	.7981-01	.9613-01	.1071	62.39	4.980	.4110	561.2	.1193-02
21	.00000	.65000	31.000	.5670-01	.6827-01	.7602-01	62.51	3.544	.4099	559.8	.8471-03
21	.00000	.70000	32.000	.6823-01	.8218-01	.9153-04	62.39	4.257	.4109	561.2	.1020-02
21	.00000	.80000	34.000	.2467	.2971	.3309	62.49	15.42	.4101	560.0	.3687-02
21	.00000	.85000	35.000	.1303	.1569	.1747	62.56	8.152	.4094	559.1	.1947-02
21	.00000	.90000	36.000	.4764-01	.5744-01	.6402-01	62.08	2.957	.4138	565.1	.7126-03
21	.00000	.92500	37.000	.2786-01	.3362-01	.3750-01	61.79	1.721	.4165	568.7	.4170-03
21	.00000	.95000	38.000	.1691-01	.2043-01	.2281-01	61.44	1.039	.4196	573.0	.2534-03
21	.00000	.97500	39.000	.9331-02	.1126-01	.1256-01	61.76	.5763	.4167	569.1	.1397-03



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AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) ORB FUSE

ORB BOTTOM CL

PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RV/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/LBM	PINF PSIA	HM/HT	QDOT BTU/FT2SEC	ORF BTU/FT2SEC	H/HREF R=0.9	H/HREF R=0.85	H/HREF R=1.0	TC NO	X/L	PHI	RUN NUMBER	SCALE
30	5.000	.0000	5.300	4.973	405.7	1306.	319.0	.5349	200.9	.5349	58.07	.8841	.9908	.7275	1.0000	.00000	.00000	30	.1077-01
30											58.21	.6027	.6752	.4962	2.0000	.50100-02	.00000	30	.7344-02
30											58.43	.3995	.4473	.3291	3.0000	.10000-01	.00000	30	.4868-02
30											58.81	.1768	.1978	.1459	4.0000	.20000-01	.00000	30	.2156-02
30											59.10	.9612-01	.1075	.7938-01	5.0000	.30000-01	.00000	30	.1172-02
30											59.37	.1096	.1224	.9055-01	7.0000	.30000-01	.00000	30	.1336-02
30											59.47	.1199	.1340	.9918-01	8.0000	.50000-01	.00000	30	.1463-02
30											59.53	.1012	.1130	.8369-01	9.0000	.60000-01	.00000	30	.1234-02
30											59.72	.9620-01	.1074	.7961-01	10.000	.70000-01	.00000	30	.1173-02
30											59.87	.2249	.2510	.1862	11.000	.80000-01	.00000	30	.2743-02
30											59.91	.2434	.2716	.2015	12.000	.90000-00	.00000	30	.2969-02
30											59.97	.1781	.1987	.1475	14.000	.10000-00	.00000	30	.2172-02
30											60.03	.1274	.1421	.1055	15.000	.14000	.00000	30	.1554-02
30											60.03	.1458	.1626	.1208	16.000	.15000	.00000	30	.1778-02
30											60.03	.1908	.2128	.1361	17.000	.16000	.00000	30	.2327-02
30											60.03	.1443	.1610	.1135	18.000	.17000	.00000	30	.1760-02
30											60.07	.1080	.1205	.0952-01	19.000	.17000	.00000	30	.1318-02
30											60.08	.8248-01	.9199-01	.6834-01	20.000	.18000	.00000	30	.1006-02
30											60.09	.6930-01	.7730-01	.5742-01	21.000	.19000	.00000	30	.8454-03
30											60.23	.1659	.1850	.1375	22.000	.20000	.00000	30	.2024-02
30											60.29	.1339	.1492	.1110	23.000	.22000	.00000	30	.1633-02
30											60.35	.1110	.1237	.0904-01	24.000	.25000	.00000	30	.1354-02
30											60.35	.1364	.1520	.1131	25.000	.30000	.00000	30	.1664-02
30											60.40	.1004	.1119	.0820-01	26.000	.40000	.00000	30	.1224-02
30											60.47	.8492-01	.9465-01	.7643-01	27.000	.40000	.00000	30	.1036-02
30											60.55	.7937-01	.8848-01	.6963-01	28.000	.50000	.00000	30	.9683-03
30											60.55	.5039-01	.5616-01	.4181-01	29.000	.55000	.00000	30	.6148-03

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
30	.00000	.00000	1.0000	.7275	.8841	.9908	58.07	42.24	.4356	579.2	.1077-01
30	.00000	.50100-02	2.0000	.4962	.6027	.6752	58.21	28.88	.4343	577.4	.7344-02
30	.00000	.10000-01	3.0000	.3291	.3995	.4473	58.43	19.23	.4323	574.7	.4868-02
30	.00000	.20000-01	4.0000	.1459	.1768	.1978	58.81	8.579	.4287	569.9	.2156-02
30	.00000	.30000-01	5.0000	.7938-01	.9612-01	.1075	59.10	4.691	.4259	566.3	.1172-02
30	.00000	.40000-01	6.0000	.9055-01	.1096	.1224	59.37	5.376	.4234	562.9	.1336-02
30	.00000	.50000-01	7.0000	.9918-01	.1199	.1340	59.47	5.898	.4225	561.7	.1463-02
30	.00000	.60000-01	8.0000	.8369-01	.1012	.1130	59.53	4.982	.4219	560.9	.1234-02
30	.00000	.70000-01	9.0000	.7961-01	.9620-01	.1074	59.72	4.755	.4200	558.5	.1173-02
30	.00000	.80000-01	10.000	.1862	.2249	.2510	59.87	11.13	.4193	557.5	.2743-02
30	.00000	.90000-01	11.000	.2015	.2434	.2716	59.91	12.07	.4187	556.6	.2969-02
30	.00000	.10000-00	12.000	.1475	.1781	.1987	59.97	8.329	.4177	555.3	.2172-02
30	.00000	.14000	15.000	.1055	.1274	.1421	60.03	6.329	.4175	555.1	.1554-02
30	.00000	.15000	16.000	.1208	.1458	.1626	60.03	7.244	.4172	554.6	.1778-02
30	.00000	.16000	17.000	.1361	.1608	.1828	60.03	9.488	.4172	554.6	.2327-02
30	.00000	.17000	18.000	.1135	.1443	.1610	60.03	7.177	.4168	554.2	.1760-02
30	.00000	.18000	19.000	.0952-01	.1080	.1205	60.07	5.377	.4167	554.1	.1318-02
30	.00000	.19000	20.000	.6834-01	.8248-01	.9199-01	60.08	4.105	.4166	554.1	.1006-02
30	.00000	.20000	21.000	.5742-01	.6930-01	.7730-01	60.09	3.451	.4166	553.9	.8454-03
30	.00000	.22000	22.000	.1375	.1659	.1850	60.23	8.282	.4153	552.1	.2024-02
30	.00000	.25000	23.000	.1110	.1339	.1492	60.29	6.691	.4147	551.4	.1633-02
30	.00000	.30000	24.000	.0904-01	.1110	.1237	60.34	5.554	.4142	550.7	.1354-02
30	.00000	.40000	25.000	.1131	.1364	.1520	60.35	6.827	.4141	550.6	.1664-02
30	.00000	.45000	26.000	.8320-01	.1004	.1119	60.40	5.014	.4149	551.7	.1224-02
30	.00000	.50000	27.000	.7643-01	.8492-01	.9465-01	60.47	4.254	.4137	550.0	.1036-02
30	.00000	.55000	28.000	.6963-01	.7937-01	.8848-01	60.55	3.973	.4141	550.6	.9683-03
30	.00000	.55000	29.000	.4181-01	.5039-01	.5616-01	60.55	2.529	.4129	549.0	.6148-03

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(RZADU)

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(3+S) ORB FUSE

RUN NUMBER	PHI	X/L	TC NO	H/MREF R=1.0	H/MREF R=0.9	H/MREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/M/HT	TH DEG. R	STN NO R=0.9
30	.00000	.60000	30.000	.5554-01	.6696-01	.7464-01	60.19	3.354	.4138	550.1	.8169-03
30	.00000	.65000	31.000	.3612-01	.4353-01	.4850-01	60.15	2.187	.4123	548.1	.5311-03
30	.00000	.70000	32.000	.4454-01	.5374-01	.5992-01	60.22	2.682	.4154	552.3	.6555-03
30	.00000	.80000	34.000	.1392	.1678	.1870	60.50	8.422	.4128	548.8	.2047-02
30	.00000	.85000	35.000	.1012	.1219	.1358	60.194	6.136	.4114	547.0	.1487-02
30	.00000	.90000	36.000	.2725-01	.3288-01	.3667-01	60.18	1.640	.4156	552.8	.4011-03
30	.00000	.92500	37.000	.1471-01	.1776-01	.1982-01	59.91	.8814	.4183	556.1	.2167-03
30	.00000	.95000	38.000	.5807-02	.7020-02	.7840-02	59.56	.3459	.4216	560.5	.8561-04
30	.00000	.97500	39.000	.6701-02	.8093-02	.9031-02	59.89	.4013	.4185	556.4	.9871-04

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0-5) ORB FUSE

ORB BOTTOM CL

PARAMETRIC DATA

ALPHA = 10.00 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
29	10.00	.0000	5.300	4.912	405.8	1316.	321.7	.5348	202.6	.2215-03	3697.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TN DEG. R	STN NO R=0.9
29	.00000	.00000	1.0000	.6405	.7811	.8773	57.70	36.96	.4439	595.1	.9561-02
29	.00000	.50000-02	2.0000	.4335	.5283	.5932	57.80	25.05	.4430	593.9	.6467-02
29	.00000	1.0000-01	3.0000	.4484	.5462	.6130	57.95	25.98	.4415	591.9	.6886-02
29	.00000	.20000-01	4.0000	.3088	.3758	.4215	58.23	17.98	.4389	588.4	.4601-02
29	.00000	.30000-01	5.0000	.1698	.2065	.2315	58.42	9.923	.4371	586.0	.2529-02
29	.00000	.50000-01	7.0000	.7025-01	.8538-01	.9568-01	58.58	4.115	.4357	584.0	.1046-02
29	.00000	.60000-01	8.0000	.4600-01	.5591-01	.6265-01	58.60	2.696	.4355	583.4	.6846-03
29	.00000	.70000-01	9.0000	.3951-01	.4801-01	.5379-01	58.63	2.316	.4352	583.4	.5879-03
29	.00000	.80000-01	10.000	.5345-01	.6492-01	.7273-01	58.73	3.139	.4343	582.2	.7951-03
29	.00000	.90000-01	11.000	.5335-01	.6480-01	.7259-01	58.76	3.135	.4340	581.8	.7936-03
29	.00000	1.0000-00	12.000	.5109-01	.6205-01	.6950-01	58.79	3.003	.4337	581.4	.7599-03
29	.00000	.14000	15.000	.1449	.1759	.1970	58.81	8.518	.4335	581.2	.2154-02
29	.00000	.15000	16.000	.1305	.1584	.1774	58.80	7.670	.4336	581.3	.1726-02
29	.00000	.16000	17.000	.1160	.1409	.1578	58.80	6.822	.4336	581.3	.1593-02
29	.00000	.17000	18.000	.1071	.1301	.1457	58.79	6.298	.4337	581.4	.1595-02
29	.00000	.18000	19.000	.1045	.1270	.1422	58.78	6.144	.4338	581.6	.1531-02
29	.00000	.19000	20.000	.1029	.1250	.1401	58.72	6.297	.4341	582.3	.1595-02
29	.00000	.20000	21.000	.1072	.1303	.1459	58.75	6.046	.4340	582.0	.1546-02
29	.00000	.22500	22.000	.1040	.1263	.1414	58.75	6.108	.4340	581.9	.1523-02
29	.00000	.25000	23.000	.1024	.1244	.1393	58.76	6.017	.4340	581.8	.8922-03
29	.00000	.29000	24.000	.5998-01	.7285-01	.8161-01	58.76	3.524	.4340	581.8	.1138-02
29	.00000	.35000	25.000	.7650-01	.9294-01	1.041	58.69	4.490	.4346	582.7	.6704-03
29	.00000	.40000	26.000	.4504-01	.5475-01	.6137-01	58.52	2.635	.4363	584.8	.6891-03
29	.00000	.45000	27.000	.4631-01	.5528-01	.6306-01	58.64	2.716	.4350	583.2	.4849-03
29	.00000	.50000	28.000	.3258-01	.4438-01	.5856	58.56	1.908	.4358	584.3	.4299-03
29	.00000	.55000	29.000	.2889-01	.3511-01	.3934-01	58.64	1.694	.4351	583.3	.3993-03
29	.00000	.60000	30.000	.2683-01	.3261-01	.3655-01	58.55	1.571	.4360	584.5	

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(7MBA05)

ARCS.5-211(1M48)OTS/NIPPLE/P/TRIP(10+S)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TN DEG. R	STN NO R=0.9
29	.00000	.65000	31.000	.2091-01	.2541-01	.2846-01	58.67	1.227	.4348	582.9	.3111-03
29	.00000	.70000	32.000	.6161-01	.7489-01	.8394-01	58.52	3.605	.4362	584.8	.9170-03
29	.00000	.75000	33.000	.6043-01	.7341-01	.8224-01	58.72	3.548	.4344	582.3	.8990-03
29	.00000	.80000	34.000	.9104-01	.1106	.1239	58.74	5.348	.4342	582.1	.1354-02
29	.00000	.85000	35.000	.7733-01	.9386-01	.1051	58.95	4.559	.4322	579.4	.1150-02
29	.00000	.90000	36.000	.2493-01	.3028-01	.3391-01	58.78	1.465	.4338	581.5	.3708-03
29	.00000	.92500	37.000	.1858-01	.2257-01	.2528-01	58.71	1.091	.4344	582.4	.2764-03
29	.00000	.95000	38.000	.1862-01	.2262-01	.2535-01	58.59	1.091	.4356	583.9	.2770-03
29	.00000	.97500	39.000	.2064-01	.2506-01	.2807-01	58.78	1.213	.4338	581.5	.3069-03

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(R08A07)

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP/INTE

ORB FUSE

ORB BOTTOM CL

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RND SLUD/ FT3	VINF FT/SEC	SCALE
51	.0000	.0000	5.300	4.883	406.3	1322.	323.2	.5353	203.5	.2207-03	3706.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TN DEG. R	SIN NO R=0.9
51	.00000	.00000	1.0000	.8894	1.081	1.212	58.77	52.27	.4370	588.6	.1327-01
51	.00000	.50000-02	2.0000	.5809	.7060	.7912	58.91	34.22	.4357	586.9	.8666-02
51	.00000	.10000-01	3.0000	.3949	.4675	.5237	59.08	22.74	.4341	584.8	.5739-02
51	.00000	.20000-01	4.0000	.1767	.2144	.2400	59.39	10.50	.4312	580.9	.2632-02
51	.00000	.30000-01	5.0000	.1073	.1300	.1455	59.61	6.394	.4292	578.2	.1597-02
51	.00000	.40000-01	7.0000	.1462	.1772	.1981	59.78	8.741	.4276	576.0	.2176-02
51	.00000	.50000-01	8.0000	.1347	.1632	.1825	59.81	8.059	.4273	575.6	.2005-02
51	.00000	.60000-01	9.0000	.1285	.1557	.1741	59.84	7.689	.4270	575.2	.1911-02
51	.00000	.70000-01	10.000	.9315-01	.1128	.1261	59.96	5.566	.4259	573.8	.1385-02
51	.00000	.80000-01	11.000	.7523-01	.1018	.1018	60.01	4.515	.4255	573.1	.1119-02
51	.00000	.90000-01	12.000	.1172	.1419	.1586	60.05	7.039	.4251	572.6	.1743-02
51	.00000	.10000+00	14.000	.2653	.3212	.3588	60.08	15.94	.4249	572.3	.3944-02
51	.00000	.13000	15.000	.1084	.1312	.1466	60.10	6.514	.4246	572.0	.1611-02
51	.00000	.14000	16.000	.6933-01	.8322-01	.9378-01	60.10	4.167	.4246	572.0	.1031-02
51	.00000	.15000	17.000	.8056-01	.9751-01	.1090	60.12	4.843	.4245	571.8	.1198-02
51	.00000	.16000	18.000	.7389-01	.8943-01	.9994-01	60.11	4.442	.4245	571.9	.1098-02
51	.00000	.17000	19.000	.6961-01	.8425-01	.9414-01	60.12	4.185	.4245	571.8	.1035-02
51	.00000	.18000	20.000	.1043	.1262	.1410	60.11	6.268	.4246	571.9	.1550-02
51	.00000	.19000	21.000	.9709-01	.1175	.1313	60.10	5.835	.4246	572.0	.1443-02
51	.00000	.20000	22.000	.1254	.1929	.2156	60.18	9.594	.4239	571.1	.2369-02
51	.00000	.21000	23.000	.1254	.1565	.1749	60.20	7.788	.4237	570.8	.1923-02
51	.00000	.22000	24.000	.1059	.1281	.1431	60.22	6.376	.4238	570.6	.1573-02
51	.00000	.23000	25.000	.1017	.1231	.1375	60.19	6.121	.4238	570.9	.1511-02
51	.00000	.24000	26.000	.1060	.1308	.1462	60.20	6.483	.4255	573.2	.1606-02
51	.00000	.25000	27.000	.8362-01	.1012	.1130	60.20	5.034	.4237	570.7	.1243-02
51	.00000	.45000	28.000	.8306-01	.1005	.1123	60.14	4.995	.4243	571.5	.1235-02
51	.00000	.50000	29.000	.6187-01	.7486-01	.8363-01	60.23	3.727	.4234	570.4	.9194-03

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP/INTS ORB FUSE

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	OOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
51	.00000	.60000	30.000	.6800-01	.8229-01	.9195-01	60.15	4.090	.4242	571.4	.1011-02
51	.00000	.65000	31.000	.5168-01	.6252-01	.6984-01	60.27	3.115	.4231	569.9	.7679-03
51	.00000	.70000	32.000	.5360-01	.6487-01	.7248-01	60.16	3.225	.4241	571.3	.7967-03
51	.00000	.75000	33.000	.1520	.1839	.2055	60.25	9.160	.4232	570.1	.2259-02
51	.00000	.80000	34.000	.1888	.2284	.2552	60.22	11.37	.4235	570.5	.2806-02
51	.00000	.85000	35.000	.8772-01	.1061	.1185	60.30	5.290	.4228	569.5	.1303-02
51	.00000	.90000	36.000	.2455-01	.2974-01	.3326-01	59.85	1.469	.4270	575.2	.3652-03
51	.00000	.92500	37.000	.1504-01	.1823-01	.2039-01	59.64	.8968	.4289	577.8	.2238-03
51	.00000	.95000	38.000	.7135-02	.8658-02	.9693-02	59.35	.4235	.4316	581.4	.1063-03
51	.00000	.97500	39.000	.4235-02	.5133-02	.5742-02	59.67	.2527	.4286	577.3	.6302-04

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1M48083

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP

ORB FLY-

ORB BOTTOM CL

PARAMETRIC DATA

ALPHA = .0000 BETA = -5.000 RV/L = 5.000

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TI DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
55	.0000	-5.000	5.300	4.867	405.3	1323.	323.4	.5339	203.6	.2200-03	3707.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	1/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
55	.00000	.00000	1.0000	.8674	1.051	1.176	59.67	51.75	.4283	577.2	.1293-01
55	.00000	.50000-02	2.0000	.5916	.7166	.8013	59.80	35.38	.4270	575.5	.6814-02
55	.00000	.10000-01	3.0000	.3821	.4626	.5171	59.98	22.92	.4253	573.2	.5690-02
55	.00000	.20000-01	4.0000	.1683	.2035	.2273	60.29	10.14	.4225	569.4	.2504-02
55	.00000	.30000-01	5.0000	.9973-01	.1193	.1332	60.49	5.972	.4206	566.9	.1469-02
55	.00000	.50000-01	7.0000	.505	.1918	.2029	60.68	9.132	.4189	564.6	.2237-02
55	.00000	.60000-01	8.0000	.1393	.1693	.1878	60.70	8.457	.4187	564.3	.2071-02
55	.00000	.70000-01	9.0000	.1051	.1269	.1416	60.75	6.383	.4182	563.7	.1561-02
55	.00000	.80000-01	10.000	.7848-01	.9473-01	.1057	60.86	4.776	.4172	563.2	.1166-02
55	.00000	.90000-01	11.000	.7193-01	.8692-01	.9584-01	60.90	4.381	.4168	561.8	.1058-02
55	.00000	.10000+00	12.000	.1037	.1251	.1396	60.94	6.320	.4164	561.2	.1540-02
55	.00000	.13000	14.000	.3178	.3834	.4275	61.02	19.39	.4157	560.2	.4718-02
55	.00000	.14000	15.000	.1373	.1657	.1848	61.03	8.383	.4156	560.1	.2039-02
55	.00000	.15000	16.000	.1117	.1348	.1503	61.03	6.817	.4156	560.1	.1659-02
55	.00000	.16000	17.000	.1143	.1379	.1537	61.03	6.974	.4154	559.8	.1697-02
55	.00000	.17000	18.000	.1553	.1873	.2089	61.05	9.481	.4154	559.8	.2306-02
55	.00000	.18000	19.000	.1624	.1958	.2184	61.08	9.916	.4151	559.5	.2410-02
55	.00000	.19000	20.000	.1577	.1903	.2122	61.06	9.632	.4153	559.7	.2342-02
55	.00000	.20000	21.000	.1557	.1891	.2108	61.06	9.570	.4153	559.7	.2327-02
55	.00000	.22500	22.000	.1215	.1465	.1633	61.18	7.430	.4142	559.3	.1803-02
55	.00000	.25000	23.000	.1133	.1367	.1523	61.20	6.936	.4140	558.0	.1682-02
55	.00000	.30000	24.000	.1567	.1890	.2106	61.25	9.600	.4136	557.4	.2326-02
55	.00000	.35000	25.000	.1130	.1362	.1518	61.22	6.916	.4138	557.7	.1677-02
55	.00000	.40000	26.000	.1301	.1569	.1749	61.15	7.955	.4145	558.7	.1931-02
55	.00000	.45000	27.000	.8686-01	.1047	.1167	61.30	5.325	.4131	556.8	.1289-02
55	.00000	.50000	28.000	.9150-01	.1103	.1230	61.25	5.605	.4135	557.3	.1358-02
55	.00000	.55000	29.000	.7091-01	.9547-01	.9524-01	61.33	4.349	.4128	556.4	.1352-02

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(RMBAD8)

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ORB FUSE OOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
56	.00000	.60000	30.000	.6836-01	.8241-01	.9185-01	61.28	4.189	.4133	557.0	.1914-02
56	.00000	.65000	31.000	.6376-01	.7683-01	.8561-01	61.38	3.913	.4124	555.8	.9457-03
56	.00000	.70000	32.000	.5489-01	.6617-01	.7374-01	61.29	3.364	.4132	556.9	.8144-03
56	.00000	.75000	33.000	.1221	.1471	.1639	61.45	7.504	.4117	554.9	.1811-02
56	.00000	.80000	34.000	.1156	.1393	.1552	61.41	7.097	.4121	555.4	.1714-02
56	.00000	.85000	35.000	.1547	.1864	.2077	61.44	9.507	.4118	555.0	.2295-02
56	.00000	.90000	36.000	.4462-01	.5383-01	.6003-01	61.02	2.722	.4157	560.3	.6625-03
56	.00000	.92500	37.000	.2808-01	.3390-01	.3782-01	60.78	1.705	.4180	563.3	.4172-03
56	.00000	.95000	38.000	.1886-01	.2279-01	.2545-01	60.47	1.140	.4208	567.1	.2804-03
56	.00000	.97500	39.000	.1222-01	.1476-01	.1647-01	60.71	.7420	.4186	564.1	.1816-03



**1984291**

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

**3501 BAO ORG FUSE**

**ORR BOYCE CL**

## PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000 RW/L = 5.000

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	PN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
69	-5.000	-5.000	5.300	4.898	408.1	1323.	323.5	.5376	203.0	.2214-03	3708.	.1750-01

..TEST DATA..

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F72SEC	QOOT BTU/ F72SEC	HAI/HT	TH DEG. R	STN NO R=0.9
69	.00000	.00000	1.0000	1.091	1.328	1.489	58.77	64.13	.4386	591.7	.1627-01
69	.00000	.50000-02	2.0000	.7597	.9240	1.036	58.89	44.74	.4377	590.2	.1132-01
69	.00000	1.0000-01	3.0000	.5456	.6532	.7433	59.07	32.23	.4360	587.9	.9127-02
69	.00000	.2000-01	4.0000	.2593	.3149	.3527	59.36	15.39	.4333	584.3	.3959-02
69	.00000	.30000-01	5.0000	.1719	.2085	.2334	59.58	10.24	.4313	581.5	.2556-02
69	.00000	.50000-01	7.0000	.2089	.2532	.2833	59.79	12.49	.4293	578.9	.3104-02
69	.00000	.60000-01	8.0000	.1811	.2196	.2457	59.82	10.83	.4291	578.6	.2692-02
69	.00000	.70000-01	9.0000	.1318	.1597	.1787	59.87	7.850	.4286	577.9	.1558-02
69	.00000	.80000-01	10.000	.9738-01	.1180	.1319	60.01	5.844	.4273	576.2	.1446-02
69	.00000	.90000-01	11.000	.8690-01	.1052	.1176	60.05	5.213	.4269	575.6	.1269-02
69	.00000	1.0000+00	12.000	.7503-01	.9087-01	.1016	60.11	4.510	.4264	575.0	.1114-02
69	.00000	.12000	13.000	.1329	.1609	.1798	60.17	7.993	.4259	574.3	.1972-02
69	.00000	.13000	14.000	.2932	.3513	.3927	60.21	17.47	.4254	573.7	.4308-02
69	.00000	.14000	15.000	.2125	.2573	.2876	60.24	12.80	.4252	573.3	.3155-02
69	.00000	.15000	16.000	.1541	.1866	.2086	60.25	9.286	.4251	573.1	.2268-02
69	.00000	.16000	17.000	.1503	.1819	.2033	60.25	9.053	.4251	573.2	.2230-02
69	.00000	.17000	18.000	.1330	.1609	.1799	60.26	9.012	.4250	573.1	.1973-02
69	.00000	.18000	19.000	.1222	.1479	.1652	60.31	7.368	.4245	572.5	.1813-02
69	.00000	.19000	20.000	.1093	.1369	.1583	60.23	7.886	.4247	572.7	.1541-02
69	.00000	.20000	21.000	.1400	.1684	.1893	60.28	8.437	.4248	572.9	.2272-02
69	.00000	.22500	22.000	.1473	.1782	.1991	60.41	8.898	.4236	571.2	.2165-02
69	.00000	.23000	23.000	.1305	.1579	.1764	60.46	7.892	.4232	570.6	.1936-02
69	.00000	.32000	24.000	.1125	.1361	.1521	60.50	6.809	.4228	570.1	.1689-02
69	.00000	.35000	25.000	.1422	.1720	.1922	60.44	8.594	.4234	570.9	.2159-02
69	.00000	.40000	26.000	.1115	.1349	.1508	60.26	6.717	.4250	571.1	.1634-02
69	.00000	.45000	27.000	.1145	.1385	.1548	60.44	6.921	.4233	570.9	.1659-02
69	.00000	.50000	29.000	.1140	.1379	.1541	60.35	6.878	.4241	571.9	.1691-02

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(FIREAD9)

ARC3.5-211 1M48 OTS/NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BITU/ FT2SEC	ORB FUSE OOT BITU/ FT2SEC	H/HRT	TM DEG. R	STN NO R=0.9
69	.00000	.55000	29.000	.8497-01	.1028	.1148	60.45	5.135	.4233	570.7	.1260-02
69	.00000	.60000	30.000	.8949-01	.1083	.1210	60.35	5.401	.4242	571.9	.1328-02
69	.00000	.65000	31.000	.7562-01	.9147-01	.1022	60.46	4.572	.4232	570.6	.1122-02
69	.00000	.70000	32.000	.8163-01	.9980-01	.1104	60.30	4.922	.4246	572.6	.1211-02
69	.00000	.75000	33.000	.1466	.1773	.1961	60.46	8.864	.4231	570.6	.2173-02
69	.00000	.80000	34.000	.1771	.2143	.2395	60.35	10.69	.4242	572.0	.2628-02
69	.00000	.85000	35.000	.1528	.1849	.2066	60.37	9.223	.4240	571.7	.2267-02
69	.00000	.90000	36.000	.6095-01	.7388-01	.8265-01	59.86	3.648	.4287	578.1	.9257-03
69	.00000	.95000	37.000	.3905-01	.4738-01	.5304-01	59.58	2.326	.4313	581.6	.5807-03
69	.00000	.95000	38.000	.2556-01	.3104-01	.3478-01	59.28	1.515	.4341	585.3	.3804-03
69	.00000	.97500	39.000	.1647-01	.1998-01	.2236-01	59.61	.9817	.4310	581.1	.2449-03





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AMES 3.5-211 IH4B

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ARC3.5-211(IH4B)OTS/NIPPLE/P/TRIP(0+S) WING LMR

(RAB001)

WING LOWER SURFACE

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 1.500

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
6	.0000	.0000	5.200	1.654	120.8	1255.	306.0	.1788	199.0	.7540-04	3595.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/HT	TN DEG. R	STN NO R=0.9
6	.40000	.50000-01	87.000	.1267	.1540	.1727	31.45	3.984	.4363	556.4	.3220-02
6	.40000	.20000	89.000	.2985-01	.3626-01	.4063-01	31.55	.9418	.4345	554.1	.7581-03
6	.40000	.30000	90.000	.2706-01	.3286-01	.3680-01	31.64	.8561	.4330	552.2	.6869-03
6	.40000	.40000	91.000	.2632-01	.3195-01	.3578-01	31.65	.8331	.4327	551.8	.6680-03
6	.40000	.60000	92.000	.4364-01	.5297-01	.5930-01	31.70	1.383	.4320	550.9	.1107-02
6	.40000	.70000	93.000	.5550-01	.7956-01	.8912-01	31.58	2.069	.4340	553.4	.1663-02
6	.40000	.75000	94.000	.6484-01	.7876-01	.8823-01	31.56	2.046	.4343	553.8	.1647-02
6	.40000	.85000	95.000	.4620-01	.5612-01	.6288-01	31.55	1.457	.4346	554.1	.1173-02
6	.40000	.90000	96.000	.3318-01	.4035-01	.4524-01	31.38	1.041	.4375	559.9	.8434-03
6	.40000	.95000	97.000	.2604-01	.3169-01	.3555-01	31.29	.8149	.4390	574.1	.5489-02
6	.60000	.25000-01	110.00	.2150	.2628	.2957	30.65	6.589	.4502	574.1	.3143-02
6	.60000	.50000-01	111.00	.1231	.1505	.1693	30.74	3.780	.4495	573.2	.2202-02
6	.60000	.75000-01	112.00	.8630-01	.1054	.1185	30.92	2.653	.4486	572.1	.7598-03
6	.60000	.20000	114.00	.2981-01	.3636-01	.4086-01	30.92	.9216	.4455	568.1	.5109-03
6	.60000	.30000	115.00	.2005-01	.2445-01	.2746-01	31.02	.6221	.4438	565.9	.4277-03
6	.60000	.40000	116.00	.1680-01	.2046-01	.2297-01	31.15	.5234	.4414	562.9	.7473-03
6	.60000	.60000	118.00	.2936-01	.3576-01	.4012-01	31.18	.9156	.4409	562.2	.9131-03
6	.60000	.80000	120.00	.3592-01	.4368-01	.4897-01	31.40	1.128	.4371	557.4	.7099-03
6	.60000	.90000	122.00	.2788-01	.3397-01	.3814-01	31.08	.8664	.4427	564.5	.3150-02
6	.75000	.50000-01	135.00	.1227	.1509	.1705	29.82	3.660	.4646	592.5	.1892-02
6	.75000	.10000+00	136.00	.7377-01	.9066-01	.1024	29.90	2.206	.4632	590.7	.1084-02
6	.75000	.20000	137.00	.4231-01	.5190-01	.5853-01	30.16	1.276	.4588	585.1	.6929-03
6	.75000	.40000	139.00	.2715-01	.3317-01	.3731-01	30.70	.8335	.4493	572.9	.2646-02
6	.95000	.50000-01	161.00	.10.2	.1269	.1443	28.62	2.926	.4856	619.3	.1658-02
6	.95000	.20000	163.00	.6414-01	.7953-01	.9036-01	28.77	1.846	.4830	615.9	.1424-02
6	.95000	.30000	164.00	.5516-01	.6827-01	.7748-01	28.99	1.599	.4792	611.0	.1043-02
6	.95000	.50000	165.00	.4050-01	.4997-01	.5660-01	29.36	1.189	.4727	602.8	

ORIGINAL PAGE IS  
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(RNSB01)

AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0.5) WING LWR

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QOOT BTU/ F12SEC	HM/HT	TM DEG. R	STN NO R=0.9
6	.95000	.70000	166.00	.2477-01	.3036-01	.3422-01	30.29	.7502	.4565	582.2	.6339-03
6	.95000	.80000	167.00	.2232-01	.2737-01	.3087-01	30.17	.6732	.4586	584.8	.5715-03
6	.95000	.90000	168.00	.1673-01	.2052-01	.2315-01	30.11	.5037	.4596	586.1	.4285-03

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ARC3.5-211(11448)OTS/NIPPLE/P/TRIP(O+S) WING LMR

(RAB802)

## WING LOWER SURFACE

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
4	.0000	.0000	5.300	4.838	413.8	1345.	329.2	.5445	207.3	.2204-03	3740.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
4	.40000	.50000-01	87.000	.1823	.2201	.2454	62.72	11.44	.4165	571.3	.2709-02
4	.40000	.20000	89.000	.5304-01	.6390-01	.7119-01	63.26	3.355	.4117	564.7	.7870-03
4	.40000	.30000	90.000	.4919-01	.5919-01	.6590-01	63.62	3.129	.4084	560.2	.7291-03
4	.40000	.40000	91.000	.5192-01	.6248-01	.6955-01	63.65	3.305	.4081	559.9	.7696-03
4	.40000	.60000	92.000	.6249-01	.7517-01	.8366-01	63.75	3.984	.4072	558.6	.9260-03
4	.40000	.70000	93.000	.1189	.1433	.1597	63.20	7.516	.4122	565.5	.1765-02
4	.40000	.75000	94.000	.1127	.1359	.1514	63.10	7.112	.4131	566.7	.1673-02
4	.40000	.85000	95.000	.5348-01	.6448-01	.7188-01	62.98	3.368	.4142	568.2	.7940-03
4	.40000	.90000	96.000	.3536-01	.4274-01	.4772-01	62.23	2.201	.4209	577.4	.5261-03
4	.40000	.95000	97.000	.2865-01	.3467-01	.3874-01	61.86	1.772	.4243	582.0	.4267-03
4	.60000	.25000-01	110.00	.2427	.2956	.3319	59.89	14.53	.4420	606.3	.3635-02
4	.60000	.50000-01	111.00	.1374	.1674	.1878	60.05	8.253	.4406	604.4	.2058-02
4	.60000	.75000-01	112.00	.9964-01	.1213	.1360	60.22	6.000	.4391	602.3	.1491-02
4	.60000	.20000	114.00	.3102-01	.3768-01	.4221-01	60.77	1.885	.4341	595.5	.4634-03
4	.60000	.30000	115.00	.3448-01	.4186-01	.4687-01	61.00	2.104	.4320	592.6	.5149-03
4	.60000	.40000	116.00	.5232-01	.6340-01	.7091-01	61.48	3.217	.4277	586.7	.7801-03
4	.60000	.60000	118.00	.7739-01	.9376-01	.1048	61.54	4.763	.4271	585.9	.1154-02
4	.60000	.80000	120.00	.4038-01	.4878-01	.5444-01	62.42	2.520	.4192	575.1	.6004-03
4	.60000	.90000	122.00	.3445-01	.4182-01	.4682-01	60.99	2.101	.4321	592.8	.5144-03
4	.75000	.25000-01	134.00	.2785	.3429	.3878	57.01	15.87	.4681	642.2	.4210-02
4	.75000	.50000-01	135.00	.1473	.1812	.2048	57.26	8.431	.4659	639.1	.2225-02
4	.75000	.10000+00	136.00	.8759-01	.1077	.1216	57.48	5.035	.4638	636.3	.1322-02
4	.75000	.20000	137.00	.4944-01	.6063-01	.6836-01	58.13	2.874	.4579	628.2	.7447-03
4	.75000	.40000	139.00	.5806-01	.7076-01	.7946-01	59.78	3.470	.4431	607.8	.8699-03
4	.95000	.00000	160.00	.1205	.1500	.1710	54.35	6.548	.4922	675.3	.1839-02
4	.95000	.50000-01	161.00	.1030	.1285	.1466	54.00	5.564	.4954	679.6	.1575-02
4	.95000	.10000+00	162.00	.8181-01	.1020	.1163	54.08	4.424	.4947	678.6	.1250-02

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(R0802)

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(O+S) NINO LWR

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QOOT BTU/ F12SEC	H/H/HT	TM DEG. R	STN NO R=0.9
4	.95000	.20000	163.00	.6699-01	.8341-01	.9507-01	54.36	3.642	.4921	675.1	.1023-02
4	.95000	.30000	164.00	.6096-01	.7574-01	.8620-01	54.85	3.344	.4877	669.0	.9289-03
4	.95000	.50000	165.00	.5652-01	.6991-01	.7931-01	55.94	3.162	.4778	655.5	.8578-03
4	.95000	.70000	166.00	.4520-01	.5534-01	.6233-01	58.57	2.647	.4540	622.8	.6799-03
4	.95000	.80000	167.00	.7870-02	.9461-02	.1053-01	63.95	.5033	.4054	556.2	.1166-03
4	.95000	.90000	168.00	.2233-01	.2728-01	.3068-01	59.12	1.320	.4490	615.9	.3353-03



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ARC3.5-211(1H48)OTS/NIPPLE/P/TR(P10+S) WING LWR

(RANBBD3)

WING LOWER SURFACE

PARAMETRIC DATA

ALPHA = -5.000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBH	PINF PSIA	HN/HT DEG. R	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
21	-5.000	.0000	5.300	4.773	405.4	1339.	327.7	.5336	206.3	206.3	.2170-03	3732.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	2Y/8	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HN/HT	TH DEG. R	STN NO R=0.9
21	.40000	.50000-01	87.000	.2321	.2808	.3138	61.03	14.17	.4234	578.2	.3482-02
21	.40000	.20000	89.000	.6746-01	.8148-01	.9093-01	61.94	4.152	.4187	571.8	.1011-02
21	.40000	.30000	90.000	.7222-01	.8711-01	.9713-01	61.94	4.473	.4151	566.8	.1081-02
21	.40000	.40000	91.000	.7929-01	.9362-01	.1066	62.00	4.916	.4145	566.1	.1186-02
21	.40000	.50000	92.000	.9807-01	.1182	.1317	62.16	6.096	.4131	564.1	.1467-02
21	.40000	.70000	93.000	.1432	.1729	.1929	61.63	8.824	.4179	570.7	.2144-02
21	.40000	.75000	94.000	.1313	.1585	.1769	61.53	8.076	.4188	571.9	.1966-02
21	.40000	.85000	95.000	.6579-01	.7350-01	.8875-01	61.37	4.037	.4203	573.9	.9859-03
21	.40000	.90000	96.000	.4279-01	.5184-01	.5798-01	60.61	2.593	.4273	583.5	.6427-03
21	.40000	.95000	97.000	.3041-01	.3590-01	.4131-01	60.17	1.830	.4313	589.0	.4573-03
21	.60000	.25000-01	110.00	.3038	.3709	.4169	58.42	17.75	.4473	610.8	.4592-02
21	.60000	.50000-01	111.00	.1713	.2091	.2350	58.49	10.02	.4467	610.0	.2589-02
21	.60000	.75000-01	112.00	.1206	.1472	.1654	58.62	7.071	.4455	608.4	.1823-02
21	.60000	.20000	114.00	.3795-01	.4622-01	.5187-01	59.10	2.243	.4411	602.4	.5725-03
21	.60000	.30000	115.00	.3633-01	.4420-01	.4956-01	59.40	2.158	.4384	598.6	.5475-03
21	.60000	.40000	116.00	.7257-01	.8813-01	.9872-01	59.92	4.349	.4336	592.1	.1092-02
21	.60000	.60000	118.00	.6359-01	.7718-01	.8642-01	60.07	3.820	.4322	590.2	.9566-03
21	.60000	.80000	120.00	.4383-01	.5304-01	.5926-01	60.96	2.672	.4241	579.1	.6576-03
21	.60000	.90000	122.00	.4474-01	.5441-01	.6099-01	59.55	2.664	.4370	596.7	.6741-03
21	.75000	.50000-01	135.00	.1765	.2178	.2466	55.64	9.819	.4728	645.7	.2593-02
21	.75000	.10000-00	136.00	.9295-01	.1146	.1297	55.92	5.198	.4703	642.2	.1417-02
21	.75000	.20000	137.00	.3960-01	.4868-01	.5499-01	56.59	2.241	.4642	633.9	.6023-03
21	.75000	.40000	139.00	.2679-01	.3272-01	.3680-01	58.25	1.560	.4488	612.9	.4052-03
21	.75000	.50000-01	161.00	.1220	.1526	.1746	52.51	6.407	.5018	685.2	.1885-02
21	.95000	.10000-00	162.00	.8721-01	.1090	.1246	52.66	4.593	.5003	683.3	.1346-02
21	.95000	.20000	163.00	.6120-01	.7639-01	.8721-01	53.02	3.245	.4970	678.7	.9434-03
21	.95000	.30000	164.00	.5404-01	.6728-01	.7667-01	53.58	2.895	.4919	671.7	.8310-03

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(O+S) WING LMR

(R48803)

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	M4/HT	TM DEO. R	STN NO R=0.9
21	.95000	.50000	165.00	.4556-01	.5647-01	.6416-01	54.57	2.486	.4827	659.2	.6979-03
21	.95000	.70000	166.00	.1745-01	.2139-01	.2413-01	57.23	.9984	.4583	625.8	.2648-03
21	.95000	.80000	167.00	.1949-01	.2397-01	.2708-01	58.55	1.102	.4645	634.3	.2965-03
21	.95000	.90000	168.00	.2574-01	.3172-01	.3589-01	66.01	1.442	.4694	641.1	.3923-03

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ARC3.5-211(1H48)OTS/N(PPL/P/TRIP(O+S) WING LMR

(R188804)

## WING LOWER SURFACE

## PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
30	5.000	.0000	5.300	4.973	405.7	1306.	319.0	.5349	200.9	.2234-03	3682.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
30	.40000	.50000-01	87.000	.1665	.2018	.2258	58.79	9.787	.4288	570.1	.2460-02
30	.40000	.20000	89.000	.4496-01	.5440-01	.6078-01	59.34	2.668	.4236	563.2	.6633-03
30	.40000	.30000	90.000	.3936-01	.4755-01	.5307-01	59.81	2.354	.4193	557.4	.5799-03
30	.40000	.40000	91.000	.6097-01	.7364-01	.8218-01	59.87	3.650	.4187	556.7	.8982-03
30	.40000	.60000	92.000	.6016-01	.7263-01	.8103-01	59.98	3.609	.4176	555.2	.8859-03
30	.40000	.70000	93.000	.7401-01	.8958-01	.1001	59.23	4.383	.4247	564.7	.1092-02
30	.40000	.75000	94.000	.6674-01	.8082-01	.9034-01	59.12	3.946	.4257	566.0	.9653-03
30	.40000	.85000	95.000	.4358-01	.5281-01	.5907-01	58.89	2.567	.4279	568.9	.6438-03
30	.40000	.90000	96.000	.3295-01	.4007-01	.4491-01	57.94	1.909	.4368	580.8	.4882-03
30	.40000	.95000	97.000	.2678-01	.3261-01	.3660-01	57.50	1.540	.4409	585.3	.3973-03
30	.60000	.25000-01	110.00	.2952	.3523	.4088	55.45	16.37	.4604	612.1	.4409-01
30	.60000	.50000-01	111.00	.1760	.2160	.2437	55.49	9.768	.4600	611.6	.2629-02
30	.60000	.75000-01	112.00	.1318	.1617	.1823	55.61	7.329	.4589	610.1	.1967-02
30	.60000	.20000	114.00	.6242-01	.7648-01	.8618-01	55.93	3.491	.4558	606.0	.9318-03
30	.60000	.30000	115.00	.8680-01	.1062	.1196	56.18	4.876	.4534	602.9	.1293-02
30	.60000	.40000	116.00	.9215-01	.1125	.1264	56.90	5.243	.4467	593.9	.1370-02
30	.60000	.60000	118.00	.7498-01	.9149-01	.1028	56.99	4.273	.4458	592.7	.1114-02
30	.60000	.80000	120.00	.4795-01	.5826-01	.6528-01	58.14	2.788	.4349	578.3	.7100-03
30	.60000	.90000	122.00	.3581-01	.4379-01	.4928-01	56.43	2.021	.4511	599.8	.5332-03
30	.75000	.50000-01	135.00	.1993	.2470	.2816	51.99	10.31	.4931	655.6	.3000-02
30	.75000	.10000-00	136.00	.1190	.1482	.1699	52.06	6.195	.4924	654.7	.1800-02
30	.75000	.20000	137.00	.8733-01	.1085	.1235	52.56	4.591	.4877	648.4	.1319-02
30	.75000	.40000	139.00	.1229	.1514	.1713	54.61	6.714	.4683	622.6	.1842-02
30	.95000	.10000-00	162.00	.8906-01	.1130	.1306	48.27	4.299	.5265	702.7	.1370-02
30	.95000	.20000	163.00	.8712-01	.1104	.1275	48.52	4.227	.5262	699.6	.1339-02
30	.95000	.30000	164.00	.9593-01	.1212	.1397	49.06	4.707	.6210	692.7	.1471-02
30	.95000	.80000	167.00	.1295-01	.1565-01	.1747-01	59.85	.7756	.6188	556.9	.1909-03

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(R6804)

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0-S) WING LMR

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/HY	TM DEG. R	STN NO R=0.9
30	.95000	.90000	169.00	.3161-01	.3902-01	.4421-01	54.04	1.708	.4737	629.8	.4745-03

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AMES 3.5-211 1M48  
ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(O+S) WING LWR

WING LOWER SURFACE

PARAMETRIC DATA

ALPHA = 10.00 BETA = .0000 RV/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	2Y/8	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
29	10.00	.0000	.0000	5.300	4.912	405.8	1316.	31.7	.5348	202.6	.2215-03	3697.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	2Y/8	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
29	.40000	.50000-01	87.000	.1121	.1367	.1535	57.72	6.470	.4437	594.8	.1673-02
29	.40000	.20000	89.000	.3313-01	.4028-01	.4518-01	58.20	1.926	.4392	588.8	.4932-03
29	.40000	.30000	90.000	.3873-01	.4708-01	.5277-01	58.51	2.266	.4363	585.0	.5765-03
29	.40000	.40000	91.000	.4872-01	.5923-01	.6638-01	58.54	2.852	.4361	584.6	.7252-03
29	.40000	.60000	92.000	.7160-01	.8701-01	.9750-01	58.62	4.197	.4353	583.6	.1086-02
29	.40000	.70000	93.000	.6563-01	.7988-01	.9562-01	58.15	3.816	.4397	589.5	.9780-03
29	.40000	.85000	95.000	.3123-01	.3902-01	.4265-01	58.14	1.816	.4390	589.5	.4654-03
29	.40000	.90000	96.000	.2583-01	.3152-01	.3541-01	57.53	1.486	.4455	597.2	.3857-03
29	.40000	.95000	97.000	.2741-01	.3347-01	.3764-01	57.28	1.570	.4478	600.3	.4096-03
29	.60000	.25000-01	110.00	.2297	.2823	.3189	55.53	12.75	.4642	622.4	.3452-02
29	.60000	.50000-01	111.00	.1688	.2074	.2343	55.62	9.388	.4633	621.2	.2535-02
29	.60000	.75000-01	112.00	.1400	.1720	.1942	55.73	7.804	.4623	619.8	.2103-02
29	.60000	.90000	114.00	.9113-01	.1118	.1260	55.12	5.114	.4586	614.8	.1367-02
29	.60000	.30000	115.00	.9395-01	.1151	.1297	56.47	5.305	.4554	610.5	.1408-02
29	.60000	.40000	116.00	.8365-01	.1024	.1153	56.65	4.739	.4537	608.2	.1253-01
29	.60000	.60000	118.00	.6059-01	.7418-01	.8354-01	56.64	3.432	.4538	608.4	.9074-03
29	.60000	.80000	120.00	.2670-01	.3256-01	.3657-01	57.68	1.540	.4441	595.4	.3985-03
29	.60000	.90000	122.00	.1937-01	.2374-01	.2676-01	56.35	1.092	.4565	612.0	.2904-03
29	.75000	.50000-01	135.00	.2118	.2634	.2939	52.85	11.19	.4894	656.0	.3216-02
29	.75000	.75000-01	136.00	.1483	.1842	.2097	52.99	7.656	.4880	654.2	.2250-02
29	.75000	.90000	137.00	.1233	.1529	.1737	53.48	6.592	.4835	648.1	.1867-02
29	.75000	.40000	139.00	.1461	.1800	.2036	54.99	8.034	.4692	629.0	.2200-02
29	.75000	.50000-01	161.00	.1274	.1610	.1855	49.52	6.311	.5207	698.0	.1963-02
29	.95000	.10000-01	162.00	.1139	.1439	.1658	49.49	5.634	.5210	698.5	.1754-02
29	.95000	.20000	163.00	.1041	.1315	.1514	49.63	5.166	.5197	696.7	.1503-02
29	.95000	.30000	164.00	.9493-01	.1197	.1376	50.06	4.755	.5157	691.3	.1459-02
29	.95000	.50000	165.00	.7248-01	.9082-01	.1040	51.21	3.712	.5048	676.7	.1108-02

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ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0-5) WING LMR

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	H/H/HT	TM DEG. R	STN NO R=0.9
29	.95000	.70000	166.00	.7200-01	.8918-01	.1013	53.75	3.870	.4889	644.7	.1085-02
29	.95000	.80000	167.00	.1262-01	.1527-01	.1707-01	59.84	.7553	.4239	568.3	.1872-03
29	.95000	.90000	168.00	.3041-01	.3749-01	.4243-01	54.86	1.668	.4705	630.7	.4582-03

DATE 05 MAR 76

AMES 3.5-211 114-8

ARC3.5-211(114-8)OTS/NIPPLE/P/TRIP/INTS WING LMR

WING LOWER SURFACE

PARAMETRIC DATA

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RM0 SLUG/ FT3	VINP FT/SEC	SCALE
51	.0000	.0000	5.300	4.883	406.3	1322.	323.2	.5353	203.5	.2207-03	3765.	.1750-01
ALPHA = .0000 BETA = .0000 RN/L = 5.000												

...TEST CONDITIONS...

...TEST DATA...

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
51	.40000	.50000-01	87.000	.1691	.2056	.2306	58.65	9.917	.4380	550.0	2524-02
51	.40000	.50000	89.000	.5230-01	.6350-01	.7111-01	59.21	3.097	.4329	583.2	.7755-03
51	.40000	.30000	90.000	.4513-01	.5472-01	.6122-01	59.60	2.693	.4293	578.3	.5719-03
51	.40000	.40000	91.000	.5331-01	.6462-01	.7229-01	59.66	3.180	.4287	577.5	.7934-03
51	.40000	.60000	92.000	.6721-01	.8144-01	.9108-01	59.78	4.018	.4276	576.0	.1200-02
51	.40000	.70000	93.000	.1071	.1300	.1455	59.28	6.347	.4323	582.3	.1595-02
51	.40000	.75000	94.000	.1048	.1272	.1425	59.23	6.207	.4328	583.0	.1622-02
51	.40000	.85000	95.000	.5550-01	.6741-01	.7551-01	59.09	3.283	.4340	594.6	.8273-03
51	.40000	.92000	96.000	.3564-01	.4340-01	.4870-01	58.37	2.082	.4407	593.6	.5335-03
51	.40000	.95000	97.000	.2712-01	.3307-01	.3714-01	58.01	1.573	.4441	592.2	.4257-03
51	.60000	.25000-01	110.00	.2391	.2535	.3310	56.34	13.47	.4596	619.1	.3597-02
51	.60000	.50000-01	111.00	.1394	.1709	.1927	56.48	7.871	.4592	617.3	.2035-02
51	.60000	.75000-01	112.00	.9859-01	.1212	.1366	56.64	5.601	.4518	615.3	.1455-02
51	.60000	.20000	114.00	.3039-01	.3717-01	.4184-01	57.17	1.737	.4492	608.7	.4425-03
51	.60000	.30000	115.00	.2953-01	.3606-01	.4059-01	57.46	1.697	.4452	605.1	.4425-03
51	.60000	.40000	116.00	.4271-01	.5210-01	.5853-01	57.89	2.472	.4446	595.9	.6391-03
51	.60000	.60000	118.00	.7315-01	.8922-01	.1002	57.95	4.239	.4354	587.9	.1095-02
51	.60000	.80000	120.00	.4292-01	.5217-01	.5848-01	58.84	2.525	.4355	584.2	.6423-03
51	.60000	.90000	122.00	.3712-01	.4534-01	.5098-01	57.53	2.135	.4393	604.2	.5261-03
51	.75000	.50000-01	135.00	.1562	.1934	.2196	54.16	8.462	.4793	646.5	.2358-02
51	.75000	.10000-00	136.00	.8953-01	.1095	.1242	54.41	4.776	.4776	643.4	.1341-02
51	.75000	.20000	137.00	.4570-01	.5637-01	.6382-01	55.04	2.515	.4717	635.4	.5255-03
51	.75000	.40000	139.00	.4918-01	.6031-01	.6800-01	56.50	2.779	.4591	617.1	.7393-03
51	.75000	.50000-01	161.00	.1172	.1471	.1685	51.20	6.002	.4501	683.9	.1799-02
51	.95000	.10000-00	162.00	.8951-01	.1124	.1287	51.32	4.599	.5265	682.3	.1374-02
51	.95000	.20000	163.00	.7012-01	.8782-01	.1005	51.62	3.620	.5337	678.5	.1074-02
51	.95000	.30000	164.00	.5070-01	.7582-01	.8661-01	52.16	3.166	.4986	671.7	.9275-03

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(R28807)

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP/INTS WING LWR

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HU/HT	TH DEG. R	STN NO R=0.9
51	.95000	.50000	165.00	.5140-01	.6387-01	.7269-01	53.32	2.741	.4878	657.1	.7817-03
51	.95000	.70000	166.00	.3445-01	.4239-01	.4792-01	55.61	1.916	.4663	628.2	.5194-03
51	.95000	.80000	167.00	.6562-02	.7932-02	.8858-02	60.46	.3957	.4213	567.5	.9744-04
51	.95000	.90000	168.00	.1807-01	.2219-01	.2506-01	56.02	1.012	.4525	623.1	.2720-03



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(RAB080)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP

WING LMR

WING LOWER SURFACE

PARAMETRIC DATA

ALPHA = .0000 BETA = -5.000 RV/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TM/HT DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
55	.0000	-5.000	5.300	4.867	405.3	1323.	323.4	.5339	203.6	.2200-03	3707.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	TM/HT DEG. R	TH DEG. R	STN NO R=0.9
55	.40000	.50000-01	87.000	.1922	.2323	.2593	60.49	11.63	.4205	556.8	-2352-02
55	.40000	.20000	89.000	.4475-01	.5398-01	.6020-01	61.04	2.731	.4155	560.0	-6544-03
55	.40000	.30000	90.000	.6529-01	.7991-01	.8905-01	61.29	4.053	.4132	556.5	-9855-03
55	.40000	.40000	91.000	.6915-01	.8335-01	.9289-01	61.31	4.239	.4130	556.7	-1026-02
55	.40000	.60000	92.000	.9014-01	.1087	.1211	61.30	5.526	.4131	556.7	-1337-02
55	.40000	.70000	93.000	.7067-01	.8529-01	.9513-01	60.92	4.305	.4167	561.6	-1060-02
55	.40000	.75000	94.000	.6819-01	.8231-01	.9182-01	60.87	4.151	.4171	562.	-1013-02
55	.40000	.85000	95.000	.6916-01	.8234-01	.9189-01	60.64	4.133	.4192	565.0	-1013-02
55	.40000	.90000	96.000	.5471-01	.6622-01	.7401-01	60.04	3.253	.4236	572.5	-3145-03
55	.40000	.95000	97.000	.5026-01	.6089-01	.6810-01	59.74	3.002	.4275	575.2	-1750-03
55	.60000	.25000-01	110.00	.3856	.4680	.5240	59.26	22.85	.4320	582.3	-3733-02
55	.60000	.50000-01	111.00	.2124	.2577	.2885	59.37	12.61	.4310	580.9	-3183-02
55	.60000	.75000-01	112.00	.1482	.1798	.2012	59.45	6.810	.4303	579.5	-2210-02
55	.60000	.20000	114.00	.5724-01	.6935-01	.7756-01	59.76	3.421	.4274	576.0	-1029-02
55	.60000	.40000	116.00	.8008-01	.1055	.1192	59.97	5.232	.4255	573.4	-1202-02
55	.60000	.60000	118.00	.8718-01	.1056	.1181	59.80	5.214	.4270	573.5	-1253-02
55	.60000	.80000	120.00	.4377-01	.5232-01	.5910-01	60.37	2.642	.4217	569.4	-1651-02
55	.60000	.90000	122.00	.2932-01	.3620-01	.4053-01	59.24	1.767	.4323	522.6	-3901-02
55	.75000	.50000-01	135.00	.2532	.3095	.3481	57.34	14.52	.4499	606.3	-4751-02
55	.75000	.70000-00	136.00	.1474	.1801	.2026	57.41	8.464	.4492	605.5	-3901-02
55	.75000	.20000	137.00	.1106	.1350	.1517	57.67	6.378	.4458	602.0	-1836-02
55	.75000	.40000	139.00	.1311	.1595	.1789	59.59	7.693	.4392	599.6	-1951-02
55	.95000	.50000-01	161.00	.1660	.2055	.2332	54.15	8.993	.4736	646.4	-2520-02
55	.95000	.70000-00	162.00	.1287	.1594	.1809	54.11	6.957	.4819	646.9	-1852-02
55	.95000	.20000	163.00	.1050	.1299	.1475	54.13	5.691	.4798	646.6	-1533-02
55	.95000	.30000	164.00	.1087	.1344	.1524	54.46	5.919	.4769	642.6	-1679-02
55	.95000	.50000	165.00	.1146	.1412	.1596	55.36	6.345	.4693	631.2	-1732-02

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NING LAR

ARC3.5-21111H481OTS/NIPPLE/P/TRIP

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	H/HMT	TH DEG. F	STN NO R=0.9
56	.95000	.70000	166.00	.8466-01	.1036	.1166	4.831	.4525	609.8	.1272-32
56	.95000	.80000	167.00	.1546-01	.1865-01	.2081-01	.5423	.4163	561.1	.2636-03
56	.95000	.90000	168.00	.3621-01	.4426-01	.4980-01	2.074	.4505	607.1	.5437-08

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(1735293)

WING LOWER SURFACE

ARC3.5-211 (1H48)OTS/NIPPLE/P/TRIP

WING LWR

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PHI DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	HM/HT	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
69	-5.000	-5.000	5.300	4.898	408.1	1323.	323.5	.5376	203.8	203.8	.2214-03	3708.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	TC NO	X/C	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO
69	87.000	.50000-01	.2738	.3329	.3731	59.00	16.16	.4365	588.7	.4079-02
69	89.000	.20000	.6059-01	.7350-01	.8226-01	59.67	3.6.6	.4305	580.4	.9009-03
69	90.000	.30000	.7834-01	.9487-01	.1061	60.14	4.711	.4261	574.6	.1163-02
69	91.000	.40000	.7087-01	.8578-01	.9587-01	60.29	4.272	.4248	572.8	.1052-02
69	92.000	.60000	.7680-01	.9293-01	.1038	60.39	4.638	.4238	571.5	.1140-02
69	93.000	.70000	.9495-01	.1151	.1287	59.93	5.691	.4280	577.1	.1411-02
69	94.000	.75000	.1052	.1275	.1426	59.87	6.298	.4286	578.0	.1563-02
69	95.000	.85000	.1055	.1293	.1448	59.53	6.343	.4317	582.1	.1555-02
69	96.000	.90000	.6825-01	.1050	.1178	58.66	5.059	.4398	593.0	.1265-02
69	97.000	.93000	.7173-01	.8748-01	.9828-01	58.12	4.169	.4448	599.7	.1071-02
69	110.00	.25000-01	.3941	.4819	.5423	57.47	22.65	.4508	607.9	.5900-02
69	111.00	.50000-01	.2158	.2638	.2968	57.54	12.42	.4501	607.0	.3230-02
69	112.00	.75000-01	.1511	.1845	.2075	57.74	8.722	.4483	604.5	.2250-02
69	114.00	.90000	.5824-01	.6739-01	.7573-01	58.02	3.205	.4457	601.0	.6254-03
69	115.00	.30000	.7393-01	.9012-01	.1012	58.29	4.310	.4432	597.6	.1154-02
69	116.00	.40000	.9412-01	.1145	.1285	58.74	5.528	.4391	592.1	.1403-02
69	118.00	.60000	.7980-01	.9710-01	.1089	58.79	4.692	.4386	591.4	.1190-02
69	120.00	.80000	.5606-01	.6809-01	.7627-01	59.30	3.325	.4339	585.0	.8345-03
69	122.00	.90000	.4004-01	.4888-01	.5494-01	57.90	2.318	.4468	602.5	.5985-03
69	135.00	.50000-01	.2507	.3088	.3493	55.57	13.93	.4685	631.7	.3777-02
69	136.00	.10000+00	.1415	.1742	.1970	55.65	7.872	.4677	630.7	.2131-02
69	137.00	.20000	.7906-01	.9723-01	.1099	55.96	4.424	.4648	626.8	.1190-02
69	139.00	.40000	.1096	.1341	.1509	52.26	6.275	.4527	610.5	.1641-02
69	161.00	.50000-01	.2596	.2964	.2964	52.47	10.91	.4973	670.6	.3170-02
69	162.00	.10000+00	.1603	.2002	.2286	52.46	8.411	.4974	670.8	.2445-02
69	163.00	.20000	.1441	.1799	.2053	52.54	7.574	.4966	669.7	.2197-02
69	164.00	.30000	.1698	.2116	.2413	52.85	8.974	.4938	665.9	.2585-02

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ARC3.5-211 1M48OTS/NIPPLE/P/TRIP

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	WING LWR ODOT BTU/ FT2SEC	H/W/MT	TH DEG. R	STN NO R=0.9
69	.95000	.50000	165.00	.1519	.1888	.2148	53.47	8.121	.4880	658.1	.2305-02
69	.95000	.70000	166.00	.8597-01	.1060	.1199	55.38	4.761	.4702	634.0	.1296-02
69	.95000	.80000	167.00	.1560-01	.1887-01	.2108-01	60.39	.9417	.4238	571.5	.2314-03
69	.95000	.90000	168.00	.4148-01	.5105-01	.5770-01	55.77	2.313	.4656	629.2	.6244-03

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AMES 3.5-211 11408

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(R06B10)

## WING LOWER SURFACE

ARC3.5-211(11408)OTS/NIPPLE/P/TRIP

WING LMR

## PARAMETRIC DATA

ALPHA = 5.000 BETA = -5.000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
70	5.000	-5.000	5.300	4.723	405.8	1349.	330.2	.0000	.0000	.0000	.0000	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TW DEG. R	STN NO R=0.9
70	.40000	.50000-01	87.000	.1344	.1617	.1800	63.27	8.504	.4078	361.1	.2015-02
70	.40000	.20000	89.000	.4045-01	.4860-01	.5402-01	63.87	2.585	.4024	553.7	.6058-03
70	.40000	.30000	90.000	.5349-01	.6418-01	.7131-01	64.16	3.432	.3958	550.1	.8002-03
70	.40000	.40000	91.000	.7100-01	.8519-01	.9465-01	64.19	4.558	.3995	549.7	.1062-02
70	.40000	.60000	92.000	.1135	.1362	.1513	64.21	7.290	.3993	549.4	.1698-02
70	.40000	.70000	93.000	.9789-01	.1176	.1308	63.75	6.240	.4035	555.3	.1468-02
70	.40000	.75000	94.000	.7617-01	.9153-01	.1018	63.68	4.851	.4041	556.0	.1141-02
70	.40000	.85000	95.000	.5765-01	.6932-01	.7712-01	63.49	3.660	.4058	558.4	.8640-03
70	.40000	.90000	96.000	.4776-01	.5755-01	.6411-01	62.83	3.001	.4118	566.7	.7170-03
70	.40000	.95000	97.000	.4308-01	.5195-01	.5792-01	62.52	2.693	.4146	570.6	.6472-03
70	.60000	.25000-01	110.00	.4224	.5105	.5698	61.91	26.15	.4202	578.2	.0000
70	.60000	.50000-01	111.00	.2495	.3014	.3364	61.99	15.47	.4194	577.2	.0000
70	.60000	.75000-01	112.00	.1835	.2216	.2473	62.13	11.40	.4181	575.3	.0000
70	.60000	.30000	114.00	.8404-01	.1014	.1131	62.33	5.241	.4160	572.5	.0000
70	.60000	.40000	115.00	.1121	.1353	.1509	62.39	6.996	.4158	572.1	.0000
70	.60000	.60000	116.00	.1129	.1362	.1518	62.61	7.071	.4137	569.3	.0000
70	.60000	.80000	118.00	.1002	.1209	.1348	62.37	6.248	.4160	572.4	.0000
70	.60000	.90000	120.00	.5325-01	.6411-01	.7139-01	63.06	3.358	.4097	563.7	.0000
70	.60000	.95000	122.00	.3741-01	.4523-01	.5051-01	61.75	2.310	.4216	580.1	.0000
70	.75000	.50000-01	135.00	.2617	.3186	.3574	59.71	15.62	.4401	605.6	.0000
70	.75000	.10000+00	136.00	.2003	.2438	.2736	59.71	11.96	.4401	605.6	.0000
70	.75000	.20000	137.00	.1921	.2337	.2621	59.92	11.51	.4382	602.9	.0000
70	.75000	.40000	139.00	.1594	.1932	.2161	60.98	9.719	.4286	589.7	.0000
70	.95000	.50000-01	161.00	.1591	.1964	.2224	56.13	8.931	.4727	650.5	.0000
70	.95000	.10000+00	162.00	.1298	.1603	.1816	56.03	7.273	.4737	651.8	.0000
70	.95000	.20000	163.00	.1118	.1381	.1564	56.05	6.268	.4735	651.5	.0000
70	.95000	.30000	164.00	.1034	.1275	.1443	56.36	5.826	.4706	647.6	.0000

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(RAB810)

ARCS.5-211 1H4810TS/NIPPLE/P/TRIP

MING LMR

RUN NUMBER	2Y/B	X/C	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	MM/MT	TH DEO. R	STN NO R=0.8
70	.95000	.50000	165.00	.1055	.1295	.1461	57.54	.1461	.1295	57.54	.4598	632.7	.0000
70	.95000	.70000	166.00	.8634-01	.1052	.1182	59.34	.1182	.1052	59.34	.4435	610.2	.0000
70	.95000	.80000	167.00	.1618-01	.1942-01	.2159-01	63.97	.2159-01	.1942-01	63.97	.4015	552.4	.0000
70	.95000	.90000	168.00	.4308-01	.5245-01	.5885-01	59.69	.5885-01	.5245-01	59.69	.4403	605.8	.0000

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0-S) SRB

SRB

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 1.500

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
7	.0000	.0000	5.200	1.515	121.5	1331.	325.6	.1791	211.8	.7099-04	3709.	.1750-01
13	.0000	.0000	5.200	1.417	114.4	1336.	326.9	.1686	212.6	.6855-04	3716.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	H4/HT	TH DEG. R	STN NO R=0.9
7	.00000	.95300	1084.0	.3751-01	.4529-01	.5054-01	34.77	1.304	.4183	557.6	.9816-03
7	.76.000	.11500	1094.0	.6362-01	.7654-01	.8520-01	35.43	2.254	.4077	553.2	.1650-02
7	.76.000	.12900	1095.0	.5716-01	.6877-01	.7654-01	35.44	2.026	.4075	552.9	.1491-02
7	.76.000	.14600	1096.0	.4341-01	.5223-01	.5913-01	35.44	1.539	.4075	552.9	.1133-02
7	.76.000	.20000	1097.0	.3501-01	.4212-01	.4688-01	35.43	1.240	.4077	553.2	.9133-03
7	.76.000	.40000	1098.0	.3499-01	.4214-01	.4694-01	35.24	1.233	.4108	557.4	.9137-03
7	.76.000	.60000	1099.0	.2638-01	.3182-01	.3548-01	34.96	.9222	.4153	563.5	.6838-03
7	.76.000	.80000	1100.0	.5650-01	.6827-01	.7621-01	34.67	1.959	.4206	569.8	.1480-02
7	.76.000	.87500	1101.0	.3347-01	.4045-01	.4516-01	34.63	1.159	.4206	570.7	.8765-03
7	.90.000	.50000-01	1102.0	.6125-01	.7367-01	.8199-01	35.49	2.173	.4069	552.1	.1593-02
7	.90.000	.10000-00	1103.0	.9085-01	.1093	.1216	35.49	3.224	.4067	551.8	.2370-02
7	.90.000	.14600	1105.0	.3594-01	.4322-01	.4909-01	35.49	1.276	.4066	551.7	.9373-03
7	.90.000	.96700	1111.0	.7776-01	.9453-01	.1060	33.67	2.618	.4362	591.9	.2047-02
7	.90.000	.99000	1112.0	.8399-01	.1022	.1146	33.57	2.619	.4379	594.1	.2212-02
7	.90.000	.99000	1113.0	.8138-01	.9884-01	.1107	33.80	2.751	.4340	588.9	.2140-02
7	.104.00	.11500	1114.0	.8978-01	.1068	.1188	35.49	3.151	.4067	551.9	.2316-02
7	.104.00	.12800	1115.0	.6680-01	.8034-01	.8940-01	35.50	2.371	.4065	551.7	.1742-02
7	.104.00	.14600	1116.0	.4334-01	.5212-01	.5800-01	35.49	1.538	.4067	551.9	.1130-02
7	.104.00	.20000	1117.0	.3365-01	.4072-01	.4531-01	35.48	1.201	.4084	554.2	.8486-03
7	.104.00	.40000	1118.0	.3252-01	.3914-01	.4357-01	35.38	1.151	.4084	554.2	.3932-03
7	.104.00	.60000	1119.0	.1504-01	.1814-01	.2023-01	34.96	.5257	.4153	563.6	.1490-02
7	.104.00	.80000	1120.0	.5691-01	.6876-01	.7676-01	34.68	1.974	.4198	569.7	.8486-03
7	.104.00	.87500	1121.0	.5396-01	.6520-01	.7278-01	34.67	1.871	.4199	569.8	.1413-02
7	.135.00	.11500	1122.0	.8047-01	.9679-01	.1077	35.48	2.855	.4069	552.1	.2099-02
7	.135.00	.14600	1123.0	.1851-01	.2226-01	.2477-01	35.49	.6570	.4066	551.8	.4828-03
7	.135.00	.17700	1124.0	.1079-01	.1297-01	.1444-01	35.48	.3827	.4068	552.0	.2813-03

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AVES 3.5-211 IH\*8

ARC3.5-211(IH\*8)OTS/NIPPLE/P/TRIP(10+S)

PAGE 38

(H-3C011)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	H/HWT	TH DEG. R	STN NO R=0.9
7	135.00	.20000	1125.0	.1015-01	.1221-01	.1358-01	35.48	.3600	.4069	552.1	.2647-03
7	135.00	.30000	1126.0	.2560-01	.3080-01	.3429-01	35.38	.9057	.4084	554.1	.6680-03
7	135.00	.50000	1127.0	.2138-01	.2575-01	.2869-01	35.19	.7522	.4116	558.5	.5584-03
7	135.00	.60000	1128.0	.3697-01	.4458-01	.4970-01	35.02	1.295	.4143	562.2	.9664-03
7	135.00	.70000	1129.0	.3978-01	.4802-01	.5356-01	34.85	1.386	.4171	566.0	.1041-02
7	135.00	.80000	1130.0	.6783-01	.8193-01	.9145-01	34.71	2.354	.4193	568.9	.1776-02
7	135.00	.87500	1131.0	.5606-01	.6772-01	.7557-01	34.72	1.947	.4191	568.6	.1468-02
7	135.00	.92500	1132.0	.4954-01	.5992-01	.6682-01	34.52	1.710	.4223	573.0	.1298-02
7	135.00	.95300	1133.0	.8373-01	.1015	.1136	34.11	2.856	.4290	582.1	.3429-02
7	135.00	.96700	1134.0	.1305	.1583	.1773	33.95	4.430	.4316	585.7	.2198-02
7	135.00	.98000	1135.0	.1212	.1471	.1647	33.99	4.121	.4310	584.9	.3186-02
7	135.00	.99400	1136.0	.1089	.1320	.1476	34.18	3.722	.4260	580.7	.2858-02
13	175.00	.95300	1016.0	.8015-01	.9884-01	.1119	30.70	2.461	.4714	642.2	.2207-02
13	175.00	.96700	1017.0	.1412	.1743	.1975	30.59	4.320	.4732	644.7	.3891-02
13	175.00	.98000	1018.0	.1067	.1315	.1488	30.78	3.284	.4700	640.3	.2936-02
13	175.00	.99400	1019.0	.8446-01	.1038	.1173	31.16	2.632	.4636	631.6	.2319-02
13	180.00	.20000	1001.0	.6678-01	.1057	.1186	32.54	2.823	.4407	600.4	.2363-02
13	180.00	.22500	1002.0	.5178-01	.6226-01	.6990-01	32.40	1.655	.4430	603.6	.1392-02
13	180.00	.25000	1003.0	.4389-01	.5340-01	.5989-01	32.66	1.434	.4386	597.5	.1194-02
13	180.00	.27500	1004.0	.3180-01	.3870-01	.4341-01	32.62	1.037	.4392	598.4	.8556-03
13	180.00	.30000	1005.0	.2412-01	.2946-01	.3313-01	32.06	.6323	.4486	611.1	.6586-03
13	180.00	.32500	1006.0	.1949-01	.2375-01	.2667-01	32.43	.1594	.4424	602.7	.5312-03
13	180.00	.35000	1007.0	.4972-01	.6073-01	.6829-01	32.06	1.594	.4486	611.2	.1358-02
13	180.00	.37500	1008.0	.5673-01	.6938-01	.7808-01	31.89	1.809	.4515	615.1	.1551-02
13	180.00	.40000	1009.0	.6115-01	.7502-01	.8461-01	31.44	1.933	.4589	625.3	.1676-02
13	180.00	.42500	1010.0	.5596-01	.6850-01	.7715-01	31.73	1.776	.4541	618.7	.1531-02
13	180.00	.45000	1011.0	.4483-01	.5492-01	.6188-01	31.65	1.419	.4554	620.5	.1227-02
13	180.00	.47500	1012.0	.1354	.1666	.1882	31.10	4.212	.4647	633.2	.3720-02
13	180.00	.50000	1013.0	.7992-01	.9815-01	.1108	31.28	2.500	.4617	629.0	.2192-02
13	180.00	.52500	1014.0	.6125-01	.7487-01	.8423-01	31.97	1.958	.4501	613.3	.1673-02
13	180.00	.55000	1015.0	.4326-01	.5307-01	.5986-01	31.43	1.360	.4591	625.3	.1186-02
13	180.00	.57500	1016.0	.4555-01	.5542-01	.6216-01	32.65	1.487	.4388	597.8	.1240-02
13	180.00	.60000	1017.0	.3151-01	.3837-01	.4306-01	32.51	1.024	.4411	600.9	.8581-03
13	180.00	.62500	1018.0	.8075-01	.9836-01	.1104	32.49	2.623	.4415	601.6	.2200-02
13	180.00	.65000	1019.0	.4578-01	.5570-01	.6248-01	32.64	1.494	.4390	598.1	.1246-02
13	180.00	.67500	1020.0	.1192-01	.1453-01	.1632-01	32.36	.3853	.4436	604.4	.3249-03
13	180.00	.70000	1021.0	.1946-01	.2370-01	.2659-01	32.55	.6355	.4405	600.2	.5300-03
13	180.00	.72500	1022.0	.3240-01	.3952-01	.4440-01	32.26	1.045	.4453	606.7	.8836-03
13	180.00	.75000	1023.0	.4896-01	.5978-01	.6720-01	32.13	1.573	.4475	609.8	.1336-02
13	180.00	.77500	1024.0	.5239-01	.6415-01	.7225-01	31.72	1.662	.4543	619.0	.1433-02
13	180.00	.80000	1025.0	.5246-01	.6409-01	.7207-01	32.06	1.682	.4487	611.3	.1433-02
13	180.00	.82500	1026.0	.4747-01	.5800-01	.6524-01	32.01	1.520	.4494	612.3	.1296-02
13	180.00	.85000	1027.0	.5819-01	.7123-01	.8021-01	31.77	1.848	.4537	618.1	.1592-02



AMES 3.5-211 1M48

DATE 05 MAR 76

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(10+S) SR8

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H/HREF	TH DEG. R	STN NO R=0.9
13	225.00	.87500	1032.0	.1964-01	.2395-01	.2689-01	32.35	.6353	.4439	604.8	.5354-03
13	225.00	.92500	1033.0	.8885-02	.1087-01	.1223-01	31.86	.2831	.4520	615.8	.2429-03
13	230.00	.95300	1034.0	.2740-01	.3361-01	.3790-01	31.46	.8621	.4586	624.9	.7509-03
13	230.00	.96700	1035.0	.4491-01	.5497-01	.6199-01	31.44	1.409	.4590	625.4	.1228-02
13	230.00	.98000	1036.0	.4567-01	.5598-01	.6310-01	31.56	1.441	.4570	622.7	.1251-02
13	230.00	.99400	1037.0	.4647-01	.5685-01	.6400-01	31.85	1.480	.4522	616.1	.1271-02
13	230.00	.80000-02	1040.0	.4476	.5469	.6152	32.02	14.33	.4493	612.1	.1223-01
13	270.00	.50000-01	1041.0	.1238	.1506	.1688	32.81	1.286	.4378	596.5	.3358-02
13	270.00	.10000+00	1042.0	.3919-01	.4764-01	.5339-01	32.59	4.049	.4361	594.2	.1056-02
13	270.00	.12000	1043.0	.1535	.1869	.2097	32.54	5.004	.4398	599.2	.4180-02
13	270.00	.13400	1045.0	.4150	.5054	.5671	32.54	13.50	.4407	600.4	.1130-01
13	270.00	.17300	1046.0	.6187-01	.7536-01	.8458-01	32.49	2.010	.4415	601.5	.1685-02
13	270.00	.18600	1048.0	.7583-01	.9236-01	.1037	32.50	2.465	.4413	601.2	.2065-02
13	270.00	.19300	1049.0	.6270-01	.7637-01	.8571-01	32.50	2.038	.4413	601.3	.1708-02
13	270.00	.20000	1050.0	.5740-01	.6990-01	.7843-01	32.55	1.868	.4405	600.2	.1563-02
13	270.00	.25000	1051.0	.2692-01	.3275-01	.3673-01	32.67	.8795	.4384	597.3	.7324-03
13	270.00	.30000	1052.0	.1915-01	.2337-01	.2627-01	32.22	.8386	.4460	607.6	.5225-03
13	270.00	.40000	1053.0	.2590-01	.3157-01	.3545-01	32.38	1.203	.4433	604.0	.7058-03
13	270.00	.50000	1054.0	.3746-01	.4574-01	.5143-01	32.12	1.844	.4476	609.8	.1023-02
13	270.00	.60000	1055.0	.5814-01	.7119-01	.8018-01	31.71	1.428	.4544	619.1	.1591-02
13	270.00	.70000	1056.0	.4459-01	.5448-01	.6128-01	32.02	1.934	.4563	612.2	.1218-02
13	270.00	.75000	1057.0	.2213	.2712	.3056	31.60	6.934	.4522	621.7	.6560-02
13	270.00	.80000	1058.0	.1338-01	.1637-01	.1842-01	31.85	4.261	.4522	616.1	.3558-03
13	270.00	.87500	1059.0	.9981-02	.1217-01	.1366-01	32.37	.3231	.4434	604.2	.2721-03
13	270.00	.92500	1060.0	.1879-01	.2297-01	.2586-01	31.89	.5990	.4515	615.1	.5135-03
13	270.00	.95300	1061.0	.2051-01	.2513-01	.2832-01	31.61	.6483	.4561	621.4	.5514-03
13	270.00	.96700	1062.0	.2391-01	.2944-01	.3303-01	31.57	.7548	.4558	622.4	.6548-03
13	270.00	.98000	1063.0	.2404-01	.2944-01	.3316-01	31.71	.7623	.4545	619.2	.6578-03
13	270.00	.99400	1064.0	.2393-01	.2925-01	.3292-01	31.92	.7637	.4510	614.4	.6539-03
13	315.00	.11500	1065.0	.3026-01	.3608-01	.4141-01	32.40	.9806	.4429	603.5	.6248-03
13	315.00	.14300	1067.0	.3397-01	.4146-01	.4659-01	32.23	1.095	.4458	607.6	.9268-03
13	315.00	.17100	1068.0	.3905-01	.4687-01	.5289-01	32.35	3.031	.4438	607.3	.2566-02
13	315.00	.20000	1069.0	.4665-01	.5687-01	.6387-01	32.35	1.509	.4439	604.6	.1272-02
13	315.00	.30000	1070.0	.1754-01	.2144-01	.2412-01	31.98	.5611	.4499	613.0	.4732-03
13	315.00	.50000	1071.0	.2187-01	.2674-01	.3009-01	31.94	.6995	.4507	614.0	.5917-03
13	315.00	.52000	1071.0	.1774-01	.2174-01	.2450-01	31.56	.5538	.4570	622.6	.4657-03
13	315.00	.70000	1072.0	.1832-01	.2241-01	.2523-01	31.85	.5836	.4521	615.9	.5009-03
13	315.00	.90000	1073.0	.1596-01	.1955-01	.2204-01	31.61	.5043	.4562	621.6	.4358-03
13	315.00	.95300	1074.0	.1268-01	.1555-01	.1754-01	31.44	.3985	.4590	625.4	.3474-03
13	315.00	.96700	1075.0	.3303-01	.3981-01	.4437-01	35.08	1.159	.4133	560.8	.6531-03
7	315.00	.98000	1076.0	.4396-01	.5288-01	.5895-01	35.04	1.537	.4140	561.8	.1146-02
7	315.00	.99400	1077.0	.5018-01	.6051-01	.6745-01	35.01	1.757	.4144	562.3	.1312-02

(R0302)

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0-5) SRB

SRB

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X18.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
14	.0000	.0000	5.300	4.952	407.6	1313.	320.9	.5372	202.1	.2231-03	3693.	.1750-01
15	.0000	.0000	5.300	4.857	392.9	1299.	317.3	.5183	199.8	.2177-03	3672.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HM/HT	TM DEG. R	STN NO R=0.9
15	135.00	.5300	1084.0	.4513-01	.5636-01	.6437-01	50.38	2.274	.4980	658.6	.6932-03
15	135.00	.11500	1094.0	.1306	.1598	.1799	55.07	7.192	.4526	598.5	.1970-02
15	135.00	.12800	1095.0	.7452-01	.9118-01	.1027	55.06	4.103	.4527	598.7	.1121-02
15	135.00	.14600	1096.0	.5395-01	.6589-01	.7417-01	55.08	2.966	.4525	598.4	.8123-03
15	135.00	.20000	1097.0	.4251-01	.5568-01	.6267-01	55.13	2.509	.4520	597.8	.6854-03
15	135.00	.40000	1099.0	.4856-01	.5959-01	.6720-01	54.39	2.641	.4591	607.2	.7342-03
15	135.00	.60000	1099.0	.5655-01	.6247-01	.7082-01	52.65	2.651	.4760	629.5	.7591-03
15	135.00	.80000	1100.0	.6009-01	.7496-01	.8554-01	50.60	3.041	.4959	655.8	.9220-03
15	135.00	.95000	1101.0	.4701-01	.5968-01	.6699-01	50.48	2.373	.4970	657.3	.7217-03
15	135.00	.1000+00	1123.0	.1642	.2263	.2536	55.16	10.16	.4518	597.4	.2719-02
15	135.00	.14600	1103.0	.1672	.2042	.2296	55.55	9.289	.4480	592.5	.2519-02
15	135.00	.16000	1105.0	.4866-01	.5947-01	.6690-01	55.36	2.694	.4459	594.9	.7333-03
15	135.00	.18700	1111.0	.5413-01	.1200	.1391	46.50	4.377	.5357	708.7	.1473-02
15	135.00	.19300	1112.0	.1077	.1372	.1599	46.63	5.022	.5345	706.9	.1654-02
15	135.00	.20400	1113.0	.1123	.1421	.1639	47.82	5.372	.5229	631.4	.1716-02
15	135.00	.21500	1114.0	.1394	.1692	.1903	55.35	7.663	.4499	594.9	.2086-02
15	135.00	.22600	1115.0	.7953-01	.9733-01	.1096	55.38	4.413	.4496	594.6	.1201-02
15	135.00	.23700	1116.0	.5428-01	.6634-01	.7463-01	55.35	3.005	.4439	594.4	.8123-03
15	135.00	.24800	1117.0	.4470-01	.5462-01	.6144-01	55.40	2.476	.4495	594.9	.6723-03
15	135.00	.25900	1118.0	.5180-01	.6346-01	.7151-01	54.74	2.835	.4558	602.8	.7322-03
15	135.00	.27000	1119.0	.5344-01	.6601-01	.7480-01	52.77	2.820	.4749	628.0	.8123-03
15	135.00	.28100	1120.0	.6030-01	.7522-01	.8585-01	50.58	3.050	.4951	656.0	.9220-03
15	135.00	.29200	1121.0	.7054-01	.8801-01	.1004	50.57	3.568	.4961	656.1	.1092-02
15	135.00	.30300	1122.0	.1157	.1414	.1591	55.32	6.402	.4502	595.3	.1744-02
15	135.00	.31400	1123.0	.2397-01	.2930-01	.3295-01	55.33	1.326	.4501	595.3	.3613-03
15	135.00	.32500	1124.0	.2077-01	.2539-01	.2856-01	55.33	1.149	.4501	595.2	.3130-03

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APES 3.5-211 1H48

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1RNBC021

ARC3.5-211 1H4810TS/NIPPLE/P/TRIP(0+S)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ F125EC	QOOT BTU/ F125EC	NU/MT	TM DEG. R	STN NO R=0.9
15	135.00	.20000	1125.0	.3189-01	.3898-01	.4385-01	55.35	1.765	.4499	595.0	.4936-03
15	135.00	.30000	1126.0	.4375-01	.5357-01	.6033-01	54.91	2.403	.4541	600.5	.6603-03
15	135.00	.50000	1127.0	.3282-01	.4029-01	.4547-01	54.19	1.778	.4611	609.7	.4955-03
15	135.00	.60000	1128.0	.5356-01	.6607-01	.7481-01	53.05	2.841	.4721	624.3	.8137-03
15	135.00	.70000	1129.0	.5462-01	.6758-01	.7669-01	52.35	2.859	.4789	633.3	.8120-03
15	135.00	.80000	1130.0	.7039-01	.8765-01	.9990-01	50.98	3.588	.4922	650.9	.1078-02
15	135.00	.87500	1131.0	.8902-01	.1108	.1262	51.10	4.549	.4910	649.4	.1363-02
15	135.00	.92500	1132.0	.7066-01	.6863-01	.1015	49.48	3.497	.5067	670.1	.1089-02
15	135.00	.95300	1133.0	.1123	.1421	.1638	47.81	5.369	.5230	691.7	.1745-02
15	135.00	.95700	1134.0	.1447	.1835	.2118	47.48	6.873	.5262	695.8	.2253-02
15	135.00	.99300	1135.0	.1337	.1691	.1950	47.80	6.389	.5231	691.7	.2077-02
15	135.00	.99400	1136.0	.1298	.1633	.1876	48.83	6.339	.5130	678.4	.2007-02
14	175.00	.95300	1016.0	.1037	.1287	.1463	53.35	5.534	.4845	654.6	.1566-02
14	175.00	.95700	1017.0	.1393	.1732	.1972	52.83	7.359	.4894	652.6	.2107-02
14	175.00	.99300	1018.0	.1175	.1460	.1661	52.99	6.225	.4879	644.2	.1776-02
14	175.00	.99400	1019.0	.1051	.1302	.1479	53.65	5.637	.4817	644.2	.1584-02
14	182.00	.11500	1000.0	.1182	.1441	.1618	57.69	6.818	.4438	593.6	.1757-02
14	182.00	.20000	1001.0	.5626-01	.6858-01	.7701-01	57.74	3.248	.4434	593.1	.8364-03
14	182.00	.25000	1002.0	.3529-01	.4299-01	.4826-01	57.91	2.044	.4418	590.9	.5244-03
14	182.00	.25000	1003.0	.2153-01	.2623-01	.2944-01	57.94	1.248	.4415	590.6	.1199-03
14	182.00	.30000	1004.0	.3106-01	.3790-01	.4258-01	57.98	1.785	.4458	595.2	.4621-03
14	182.00	.40000	1005.0	.3713-01	.4526-01	.5082-01	57.76	2.145	.4432	592.7	.5520-03
14	182.00	.50000	1006.0	.1072	.1309	.1471	57.31	6.147	.4474	598.3	.1655-02
14	182.00	.55300	1007.0	.8887-01	.1086	.1221	57.14	5.078	.4490	600.5	.1324-02
14	182.00	.60000	1008.0	.1043	.1277	.1437	56.70	5.915	.4531	606.0	.1556-02
14	182.00	.65000	1009.0	.8925-01	.1032	.1230	56.68	5.059	.4533	606.3	.1331-02
14	182.00	.70000	1010.0	.7147-01	.8755-01	.9955-01	56.43	4.033	.4557	609.4	.1057-02
14	182.00	.75000	1011.0	.1562	.1914	.2157	56.41	8.813	.4558	509.7	.2333-02
14	182.00	.80000	1012.0	.1347	.1655	.1868	55.65	7.494	.4629	619.2	.2016-02
14	182.00	.87500	1013.0	.9866-01	.1211	.1366	55.94	5.519	.4632	615.5	.1475-02
14	182.00	.92500	1014.0	.5748-01	.7084-01	.8016-01	54.92	3.157	.4639	628.3	.8627-03
14	225.00	.11500	1020.0	.8979-01	.1093	.1227	59.08	5.215	.4402	588.8	.1333-02
14	225.00	.14300	1021.0	.6196-01	.7541-01	.8460-01	58.16	3.603	.4435	587.8	.9197-03
14	225.00	.17100	1022.0	.9412-01	.1146	.1285	58.15	5.473	.4435	587.9	.1397-02
14	225.00	.20000	1023.0	.5917-01	.7079-01	.7941-01	58.18	3.384	.4433	597.5	.8636-03
14	225.00	.30000	1024.0	.3047-01	.3712-01	.4167-01	57.91	1.765	.4418	590.9	.4527-03
14	225.00	.40000	1025.0	.5210-01	.6343-01	.7117-01	59.08	3.026	.4402	588.7	.7737-03
14	225.00	.50000	1026.0	.9038-01	.8481-01	.9523-01	57.77	4.019	.4431	592.7	.1034-02
14	225.00	.55000	1027.0	.9030-01	.1101	.1235	57.71	5.211	.4436	593.4	.1343-02
14	225.00	.60000	1028.0	.9549-01	.1178	.1324	57.41	5.540	.4464	597.1	.1436-02
14	225.00	.65000	1029.0	.8806-01	.1075	.1207	57.47	5.060	.4459	596.4	.1310-02
14	225.00	.70000	1030.0	.7927-01	.9676-01	.1088	57.35	4.546	.4470	597.9	.1180-02
14	225.00	.80000	1031.0	.8569-01	.1047	.1178	57.09	4.892	.4495	601.2	.1277-02

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AVES 3.5-211 INH8

ARC3.5-211(INH8)OTS/NIPPLE/P/TRIP(10+S) SR8

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HU/HT	TH DEG. F	STN NO R=0.9
14	225.00	.87500	1032.0	.2769-01	.3380-01	.3800-01	57.32	1.587	.4473	598.3	.4122-03
14	225.00	.92500	1033.0	.2104-01	.2574-01	.2898-01	56.80	1.195	.4522	604.8	.3138-03
14	230.00	.95300	1034.0	.3871-01	.4745-01	.5349-01	56.27	2.179	.4571	611.4	.5783-03
14	230.00	.95700	1035.0	.5150-01	.6319-01	.7127-01	56.03	2.886	.4593	614.4	.7699-03
14	230.00	.98000	1036.0	.5838-01	.7164-01	.8082-01	55.97	3.267	.4599	615.2	.8729-03
14	230.00	.99400	1037.0	.5855-01	.7184-01	.8104-01	56.01	3.279	.4596	614.7	.8754-03
14	230.00	.80000-02	1040.0	.4848	.5943	.6700	56.23	27.26	.4575	612.0	.7242-02
14	270.00	.50000-01	1041.0	.2786	.3395	.3811	57.85	16.12	.4423	591.5	.4140-02
14	270.00	.50000-00	1042.0	.1935	.2544	.2840	58.25	8.710	.4386	586.7	.2219-02
14	270.00	.12000	1043.0	.2955	.3161	.3548	58.02	15.05	.4408	589.6	.3856-02
14	270.00	.13000	1045.0	.5897	.7176	.8050	58.18	34.31	.4392	587.5	.9754-02
14	270.00	.17300	1046.0	.8154-01	.9930-01	.1114	58.02	4.731	.4408	589.5	.2111-02
14	270.00	.18500	1048.0	.8221-01	.1002	.1125	57.81	4.752	.4438	592.2	.1222-02
14	270.00	.19300	1049.0	.7249-01	.8838-01	.9926-01	57.69	4.183	.4438	593.6	.1078-02
14	270.00	.20000	1050.0	.6464-01	.7881-01	.8851-01	57.66	3.729	.4438	593.6	.3811-03
14	270.00	.25000	1051.0	.3162-01	.3856	.4331-01	57.66	1.823	.4441	594.0	.4722-03
14	270.00	.30000	1052.0	.2028-01	.2478-01	.2787-01	57.09	1.158	.4454	601.1	.3021-03
14	270.00	.50000	1053.0	.4310-01	.5262-01	.5915-01	57.31	2.470	.4474	602.6	.4716-03
14	270.00	.60000	1054.0	.5883-01	.6458-01	.7267-01	56.97	3.010	.4506	603.4	.1102-02
14	270.00	.70000	1055.0	.7387-01	.9039-01	.1018	56.75	4.193	.4509	603.0	.7461-02
14	270.00	.75000	1056.0	.5005-01	.6121-01	.6887-01	56.95	2.851	.4500	601.8	.3510-02
14	270.00	.80000	1057.0	.2356	.2879	.3239	57.04	13.44	.4481	599.4	.3332-03
14	270.00	.85000	1058.0	.2036-01	.2487-01	.2796-01	57.23	1.165	.4463	592.9	.3034-03
14	270.00	.90000	1059.0	.2075-01	.2537-01	.2852-01	57.43	1.194	.4463	592.9	.3034-03
14	270.00	.95000	1060.0	.2512-01	.3071-01	.3455-01	56.99	1.431	.4505	607.5	.4000-03
14	270.00	.98000	1061.0	.2714-01	.3323-01	.3742-01	56.58	1.535	.4546	612.2	.4000-03
14	270.00	.99000	1062.0	.3081-01	.3753-01	.4232-01	56.21	1.721	.4577	613.7	.4000-03
14	270.00	.99400	1063.0	.3912-01	.3572-01	.4029-01	56.09	1.633	.4589	613.7	.4000-03
14	270.00	.99400	1064.0	.3003-01	.3683-01	.4154-01	56.09	1.684	.4589	613.7	.4000-03
14	270.00	.99400	1065.0	.6436-01	.1031	.1160	57.08	4.815	.4495	601.2	.1102-02
14	270.00	.99400	1066.0	.6559-01	.8138-01	.9156-01	57.02	3.797	.4501	602.0	.3332-03
14	270.00	.99400	1067.0	.1036	.1266	.1425	56.98	5.902	.4505	602.0	.3332-03
14	270.00	.99400	1068.0	.5573-01	.6816-01	.7671-01	56.88	3.170	.4514	603.7	.3332-03
14	270.00	.99400	1069.0	.4108-01	.5036-01	.5678-01	56.17	2.307	.4591	612.7	.3332-03
14	270.00	.99400	1070.0	.2941-01	.3610-01	.4073-01	55.93	1.645	.4603	612.7	.3332-03
14	270.00	.99400	1071.0	.3737-01	.4583-01	.5168-01	55.16	2.099	.4591	612.7	.3332-03
14	270.00	.99400	1072.0	.3336-01	.4095-01	.4621-01	55.89	1.864	.4507	616.2	.3332-03
14	270.00	.99400	1073.0	.1921-01	.2363-01	.2670-01	55.44	1.065	.4649	621.8	.3332-03
14	270.00	.99400	1074.0	.3954-01	.4780-01	.5432-01	51.85	1.998	.4837	639.7	.3332-03
14	270.00	.99400	1075.0	.5030-01	.6242-01	.7096-01	51.74	2.603	.4837	641.1	.3332-03
14	270.00	.99400	1076.0	.5763-01	.7145-01	.8118-01	51.94	2.993	.4829	638.6	.3332-03
14	270.00	.99400	1077.0								

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AMES 3.5-211 IM-8

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ARC3.5-211(IM-8)OTS/NIPPLE/P/TRIP(O+S) SRB

(RNB003)

SRB

## PARAMETRIC DATA

ALPHA = -5.000 BETA = .0000 RN/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. K	HT BTU/ LBM	PINF PSIA	TINF DEG. R	R-40 SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
27	-5.000	.0000	5.300	5.101	406.1	1286.	314.0	.5361	197.7	-.2275-03	3653.	-.1750-01
28	-5.000	.0000	5.300	5.165	406.1	1276.	311.3	.5364	196.1	-.2296-03	3637.	-.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HA/HT	TH DEG. R	SIN NO R=0.9
28	.00000	.95300	1084.0	.4522-01	.5662-01	.6478-01	49.67	2.246	.5032	652.9	.67EB-03
28	76.000	.11500	1094.0	.1408	.1728	.1951	54.00	7.602	.4611	598.3	.2071-02
28	76.000	.12800	1095.0	.8032-01	.9862-01	.1113	54.00	4.339	.4611	598.3	.1182-02
28	76.000	.14600	1096.0	.5118-01	.6283-01	.7091-01	54.02	2.765	.4609	598.0	.75EB-03
28	76.000	.20000	1097.0	.6174-01	.7579-01	.8553-01	54.03	2.336	.4608	597.9	.90B1-03
28	76.000	.40000	1098.0	.4409-01	.5429-01	.6139-01	53.32	2.351	.4677	606.6	.6522-03
28	76.000	.60000	1099.0	.2497-01	.3036-01	.3518-01	51.71	1.291	.4634	627.2	.5722-03
28	76.000	.80000	1100.0	.2224-01	.2724-01	.3184-01	49.79	1.107	.5021	651.5	.33EB-03
28	76.000	.87500	1101.0	.2324-01	.2912-01	.3333-01	49.53	1.151	.5047	654.6	.37EB-03
28	90.000	.50000-01	1102.0	.1910	.2344	.2645	54.10	10.33	.5071	657.1	.22EB-02
28	90.000	.10000-00	1103.0	.1745	.2139	.2410	54.45	9.502	.4567	592.6	.25EB-02
28	90.70	.14600	1105.0	.5578-01	.6842-01	.7716-01	54.26	3.027	.4565	595.0	.81EB-03
28	90.70	.96700	1111.0	.4552-01	.5821-01	.6764-01	45.77	2.083	.5414	702.4	.6345-03
28	90.70	.93000	1112.0	.5522-01	.7056-01	.8193-01	45.92	2.535	.5359	702.4	.6448-03
28	90.000	.93400	1113.0	.5763-01	.7314-01	.8451-01	47.09	2.713	.5266	692.7	.6721-03
28	104.73	.11500	1114.0	.1546	.1897	.2139	54.24	6.336	.4533	595.3	.22EB-02
28	104.00	.12800	1115.0	.8745-01	.1073	.1210	54.28	4.746	.4535	594.9	.12EB-02
28	104.00	.14600	1116.0	.6213-01	.7622-01	.8596-01	54.23	3.370	.4589	594.9	.12EB-02
28	104.00	.20000	1117.0	.3681-01	.4515-01	.5092-01	54.26	1.998	.4589	595.0	.12EB-02
28	104.00	.35600	1118.0	.3569-01	.4383-01	.4959-01	53.61	1.913	.4589	595.0	.12EB-02
28	104.00	.60000	1119.0	.2723-01	.3284-01	.3845-01	51.71	1.411	.4634	627.2	.5722-03
28	104.00	.80000	1120.0	.2903-01	.3635-01	.4160-01	49.63	1.441	.4634	627.2	.5722-03
28	104.00	.87500	1121.0	.2926-01	.3657-01	.4198-01	49.49	1.440	.4634	627.2	.5722-03
28	135.00	.11500	1122.0	.1493	.1828	.2062	54.17	8.371	.4595	595.2	.21EB-02
28	135.00	.14600	1123.0	.3056-01	.3750-01	.4230-01	54.16	1.655	.4595	595.2	.21EB-02
28	135.00	.17700	1124.0	.3633-01	.4458-01	.5029-01	54.15	1.967	.4597	595.5	.21EB-02

PROPERTY IS  
RETURNED TO  
OFFICE OF  
NAVY

DATE 05 MAR 76

AMES 3.5-211 IH48

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(0+S) SR8

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	OOT BTU/ F12SEC	MM/HT	TM DEG. R	STN NO R=0.8
28	135.00	20000	1125.0	.5527-01	.6783-01	.7651-01	54.16	2.954	.4596	596.3	8127-03
28	135.00	30000	1126.0	.4193-01	.5155-01	.5823-01	53.69	2.251	.4642	602.3	6175-03
28	135.00	60000	1127.0	.3982-01	.4912-01	.5561-01	52.91	2.107	.4717	612.1	5891-03
28	135.00	70000	1128.0	.4429-01	.5490-01	.6237-01	51.79	2.294	.4826	626.2	6500-03
28	135.00	80000	1129.0	.3522-01	.4377-01	.4981-01	51.26	1.805	.4878	632.9	5226-03
28	135.00	90000	1130.0	.6095-01	.7626-01	.8722-01	49.80	3.035	.5020	651.4	9117-03
28	135.00	92500	1131.0	.6841-01	.8554-01	.9779-01	49.92	3.415	.5008	649.8	1023-02
28	135.00	95300	1132.0	.5042-01	.6354-01	.7305-01	48.38	2.440	.5158	669.9	1591-03
28	135.00	98000	1133.0	.7291-01	.9271-01	.1073	46.76	3.409	.5317	699.2	1197-02
28	135.00	98500	1134.0	.1001	.1476	.1476	46.48	4.650	.5344	693.4	1521-02
28	135.00	99000	1135.0	.9768-01	.1242	.1477	46.79	4.570	.5314	689.4	1482-02
27	135.00	99500	1136.0	.9287-01	.1174	.1353	47.80	4.439	.5215	676.6	1402-02
27	135.00	99700	1137.0	.1237	.1758	.2057	51.09	6.318	.4939	646.2	1553-02
27	135.00	99800	1017.0	.1441	.1801	.2057	50.56	7.287	.4989	642.9	1553-02
27	135.00	99900	1018.0	.1136	.1417	.1618	50.76	5.764	.4970	651.3	1553-02
27	135.00	99950	1019.0	.9300-01	.1157	.1318	51.44	4.784	.4924	641.8	1553-02
27	135.00	1000.0	1000.0	.1672	.2042	.2295	55.95	9.336	.4471	585.0	1553-02
27	135.00	1001.0	1001.0	.7745-01	.9452-01	.1062	56.03	4.339	.4463	584.0	1553-02
27	135.00	1002.0	1002.0	.6869-01	.8390-01	.9416-01	55.10	3.833	.4456	583.1	1553-02
27	135.00	1003.0	1003.0	.4959-01	.6062-01	.6811-01	55.11	2.789	.4455	582.9	1553-02
27	135.00	1004.0	1004.0	.5784-01	.7064-01	.7944-01	55.82	3.229	.4483	585.6	1553-02
27	135.00	1005.0	1005.0	.6774-01	.8269-01	.9394-01	55.96	3.731	.4469	584.8	1553-02
27	135.00	1006.0	1006.0	.1059	.1342	.1511	55.49	6.091	.4515	580.9	1553-02
27	135.00	1007.0	1007.0	.9899-01	.1211	.1364	55.33	5.477	.4530	582.7	1553-02
27	135.00	1008.0	1008.0	.9414-01	.1154	.1301	54.91	5.169	.4571	589.1	1553-02
27	135.00	1009.0	1009.0	.9107-01	.1117	.1259	54.78	4.939	.4583	593.7	1553-02
27	135.00	1010.0	1010.0	.7812-01	.9592-01	.1083	54.47	4.255	.4612	603.5	1553-02
27	135.00	1011.0	1011.0	.1523	.1994	.2252	54.32	8.817	.4627	605.4	1553-02
27	135.00	1012.0	1012.0	.1550	.2034	.2302	53.52	9.832	.4704	615.5	1553-02
27	135.00	1013.0	1013.0	.1201	.1479	.1672	53.73	6.451	.4654	612.9	1553-02
27	135.00	1014.0	1014.0	.7499-01	.9277-01	.1053	52.69	6.451	.4654	612.9	1553-02
27	135.00	1015.0	1015.0	.1206	.1471	.1651	56.31	3.931	.4784	626.0	1553-02
27	135.00	1016.0	1016.0	.8279-01	.1082	.1215	56.44	6.792	.4736	581.5	1553-02
27	135.00	1017.0	1017.0	.1215	.1490	.1662	56.43	5.011	.4724	579.3	1553-02
27	135.00	1018.0	1018.0	.1274	.1552	.1743	56.40	7.184	.4724	579.3	1553-02
27	135.00	1019.0	1019.0	.6560-01	.8123-01	.9125-01	56.19	3.742	.4749	582.0	1553-02
27	135.00	1020.0	1020.0	.8334-01	.1016	.1141	56.29	4.691	.4736	581.5	1553-02
27	135.00	1021.0	1021.0	.1242	.1516	.1704	55.96	6.949	.4736	581.5	1553-02
27	135.00	1022.0	1022.0	.1417	.1730	.1945	55.91	7.924	.4774	584.0	1553-02
27	135.00	1023.0	1023.0	.1429	.1747	.1965	55.66	7.924	.4774	584.0	1553-02
27	135.00	1024.0	1024.0	.1118	.1367	.1538	55.60	6.215	.4793	589.7	1553-02
27	135.00	1025.0	1025.0	.9300-01	.1138	.1281	55.43	5.155	.4821	591.5	1553-02
27	135.00	1026.0	1026.0	.5128-01	.6277-01	.7068-01	55.27	2.834	.4635	593.6	1553-03

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(248003)

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AVES 3.5-211 IHH-8

PAGE 43

(R000000)

RUN NUMBER	PHI	X/L	TC NO	H/WREF R=1.0	H/WREF R=0.9	H/WREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	M/MNT	TM DEG. A	STN NO R=0.9
27	225.00	.92500	1033.0	.3555-01	.4360-01	.4916-01	54.81	1.949	.4580	399.2	.5252-03
27	230.00	.95300	1034.0	.6016-01	.7392-01	.8348-01	54.28	3.269	.4531	605.9	.6902-03
27	230.00	.96700	1035.0	.7000-01	.8512-01	.9733-01	54.00	3.780	.4657	609.4	.1027-02
27	230.00	.98000	1036.0	.6750-01	.8308-01	.9392-01	53.89	3.637	.4668	610.8	.1000-02
27	230.00	.99400	1037.0	.5677-01	.6989-01	.7902-01	53.85	3.057	.4672	511.4	.6414-03
27	270.00	.80000-02	1040.0	.5235	.6420	.7239	54.81	28.70	.4580	599.3	.7733-02
27	270.00	.50000-01	1041.0	.2966	.3617	.4063	56.21	16.67	.4446	581.8	.4362-02
27	270.00	.10000+00	1042.0	.1518	.1849	.2076	56.43	8.574	.4420	578.4	.2230-02
27	270.00	.12000	1043.0	.2395	.3652	.4101	56.28	16.85	.4439	580.9	.4402-02
27	270.00	.12700	1044.0	.4310	.5254	.5900	56.34	24.23	.4433	580.1	.6334-02
27	270.00	.16500	1048.0	.6362-01	.8045	.1174	56.07	4.800	.4459	583.5	.1259-02
27	270.00	.19300	1049.0	.7447-01	.9092-01	.1022	55.94	4.186	.4472	585.1	.1026-02
27	270.00	.20000	1050.0	.6532-01	.7975-01	.8965-01	55.92	3.653	.4473	585.3	.9611-03
27	270.00	.25000	1051.0	.4033-01	.4332-01	.5547-01	55.79	2.253	.4485	586.9	.5944-03
27	270.00	.30000	1052.0	.3856-01	.4719-01	.5313-01	55.35	2.134	.4528	582.5	.5885-03
27	270.00	.40000	1053.0	.6321-01	.7621-01	.8577-01	55.48	3.457	.4516	580.8	.9182-03
27	270.00	.50000	1054.0	.8282-01	.1014	.1142	55.18	4.570	.4544	587.6	.1222-02
27	270.00	.60000	1055.0	.8730-01	.1069	.1203	55.29	4.826	.4534	583.3	.1387-02
27	270.00	.70000	1056.0	.7331-0	.3978-01	.1012	55.03	4.039	.4553	585.7	.1062-02
27	270.00	.75000	1057.0	.3190	.3325	.4400	55.18	17.60	.4544	585.6	.4036-02
27	270.00	.80000	1059.0	.2373-01	.2933-01	.3268-01	55.39	1.314	.4523	582.1	.5437-03
27	270.00	.87500	1059.0	.1975-01	.2416-01	.2719-01	55.46	1.055	.4518	581.1	.2911-03
27	270.00	.92500	1060.0	.2389-01	.2926-01	.3297-01	55.11	1.317	.4551	585.0	.5225-03
27	270.00	.95000	1051.0	.3765-01	.4617-01	.5205-01	54.79	2.563	.4582	583.6	.5861-03
27	270.00	.95700	1052.0	.3439-01	.4225-01	.4770-01	54.35	1.869	.4623	605.0	.5237-03
27	270.00	.98000	1053.0	.2501-01	.4305-01	.4862-01	54.17	1.897	.4641	607.3	.5183-03
27	270.00	.99400	1054.0	.3770-01	.4339-01	.5240-01	54.05	2.638	.4653	609.9	.5834-03
27	315.00	.11500	1055.0	.5565-01	.8031-01	.9040-01	55.41	3.638	.4522	591.7	.8603-03
27	315.00	.14300	1056.0	.5983-01	.7199-01	.8104-01	55.35	3.255	.4526	592.5	.8603-03
27	315.00	.17100	1057.0	.6171-01	.7553-01	.8505-01	55.30	3.413	.4532	593.1	.9100-03
27	315.00	.20000	1058.0	.2209-01	.2704-01	.3046-01	55.14	1.217	.4548	590.2	.5259-03
27	315.00	.20000	1070.0	.2231-01	.2740-01	.3094-01	54.40	1.214	.4520	604.5	.5230-03
27	315.00	.20000	1071.0	.3553-01	.4787-01	.4955-01	54.22	1.935	.4631	604.5	.5230-03
27	315.00	.20000	1072.0	.3705-01	.4552-01	.5139-01	54.32	2.012	.4631	603.4	.5481-03
27	315.00	.20000	1073.0	.3200-01	.4673-01	.5280-01	54.08	2.055	.4590	605.5	.5827-03
27	315.00	.20000	1074.0	.5252-01	.6470-01	.7319-01	53.68	2.820	.4590	613.5	.7056-03
27	315.00	.20000	1075.0	.7012-01	.8225-01	.9440-01	50.95	3.573	.4590	613.5	.7056-03
27	315.00	.20000	1076.0	.5494-01	.6941-01	.7796-01	50.83	2.733	.4590	613.5	.7056-03
27	315.00	.20000	1077.0	.5212-01	.6464-01	.7366-01	50.93	2.658	.4590	613.5	.7056-03

ARC3.5-211 1H+8 1OTS/NIPPLE/P/TRIP(0-S) SRB

SRB

## PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RV/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBR	PIRG PSIA	TINF DEG. R	RNO SLUG/ FT3	VINF FT/SEC	SCALE
36	5.000	.0000	5.300	4.725	404.5	1346.	329.3	.5321	207.4	.2153-03	3741.	.1753-01
37	5.000	.0000	5.300	5.047	404.6	1292.	315.4	.5340	198.6	.2256-03	3661.	.1753-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.5
37	.00000	.93300	1084.0	.7465-01	.9269-01	.1054	52.05	3.526	.4352	638.8	1130-02
37	.00000	.11500	1094.0	.1307	.1697	.1911	55.57	7.713	.4522	594.4	1130-02
37	.00000	.12300	1095.0	.7135-01	.8727-01	.9822-01	55.65	3.971	.4515	593.5	1130-02
37	.00000	.14600	1096.0	.5963-01	.7292-01	.8206-01	55.69	3.321	.4511	592.9	1130-02
37	.00000	.20000	1097.0	.3874-01	.4738-01	.5331-01	55.69	2.157	.4511	593.0	1130-02
37	.00000	.40000	1098.0	.3543-01	.4465-01	.5032-01	55.69	2.007	.4559	600.4	1130-02
37	.00000	.60000	1099.0	.3526-01	.4467-01	.5033-01	55.63	1.922	.4663	605.7	1130-02
37	.00000	.80000	1100.0	.6551-01	.8128-01	.9240-01	52.19	3.419	.4646	611.0	1130-02
37	.00000	.97500	1101.0	.5347-01	.6642-01	.7557-01	51.95	2.773	.4670	614.0	1130-02
37	.00000	.10000	1102.0	.1854	.2281	.2558	55.52	10.35	.4526	600.0	1130-02
37	.00000	.10000	1103.0	.1717	.2097	.2359	55.91	9.598	.4490	600.0	1130-02
37	.00000	.10000	1103.0	.5841-01	.7134-01	.8023-01	55.93	3.267	.4438	600.0	1130-02
37	.00000	.10000	1111.0	.8283-01	.1045	.1202	49.84	4.049	.5169	613.7	1130-02
37	.00000	.10000	1112.0	.8343-01	.1053	.1211	49.85	4.079	.5162	613.7	1130-02
37	.00000	.10000	1113.0	.7833-01	.9833-01	.1127	49.73	3.695	.5084	600.0	1130-02
37	.00000	.10000	1114.0	.1355	.1705	.1918	55.05	7.192	.4495	600.0	1130-02
37	.00000	.10000	1115.0	.8232-01	.1005	.1131	55.94	4.602	.4487	600.0	1130-02
37	.00000	.10000	1116.0	.5494-01	.6712-01	.7548-01	55.91	3.072	.4490	600.0	1130-02
37	.00000	.10000	1117.0	.6120-01	.7477-01	.8409-01	55.91	3.421	.4450	600.0	1130-02
37	.00000	.10000	1118.0	.4323-01	.5292-01	.5961-01	55.37	2.393	.4542	600.0	1130-02
37	.00000	.10000	1119.0	.1732-01	.2133-01	.2412-01	53.94	.9315	.4673	615.0	1130-02
37	.00000	.10000	1120.0	.6214-01	.7709-01	.8763-01	52.23	3.216	.4643	615.0	1130-02
37	.00000	.10000	1121.0	.7979-01	.9904-01	.1126	52.11	4.153	.4654	615.0	1130-02
37	.00000	.10000	1122.0	.9212-01	.1126	.1267	55.80	5.140	.4501	615.0	1130-02
37	.00000	.10000	1123.0	.2410-01	.2945-01	.3313-01	55.84	1.348	.4497	615.0	1130-02
37	.00000	.10000	1124.0	.3162-01	.3864-01	.4347-01	55.82	1.725	.4495	615.0	1130-02



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AVES 3.5-211 1H48

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(RNBC04)

RON NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	OOT BTU/ F12SEC	HM/HT	TN DEO. R	STN NO R=0.9
37	135.00	.20000	1125.0	.3216-01	.3931-01	.4422-01	55.82	1.795	.4499	591.4	.4759-03
37	135.00	.30000	1126.0	.3830-01	.4686-01	.5277-01	55.49	2.125	.4530	595.2	.5672-03
37	135.00	.50000	1127.0	.4208-01	.5159-01	.5819-01	54.87	2.308	.4589	603.2	.6243-03
37	135.00	.60000	1128.0	.4023-01	.4950-01	.5595-01	54.11	2.177	.4662	612.8	.5988-03
37	135.00	.70000	1129.0	.4869-01	.6004-01	.6796-01	53.61	2.610	.4710	619.1	.7260-03
37	135.00	.80000	1130.0	.9730-01	.1205	.1370	52.46	5.104	.4821	633.7	.1457-02
37	135.00	.87500	1131.0	.9308-01	.1153	.1309	52.55	4.891	.4812	632.5	.1394-02
37	135.00	.92500	1132.0	.7784-01	.9692-01	.1105	51.42	4.003	.4921	646.8	.1171-02
37	135.00	.95300	1133.0	.1061	.1330	.1522	50.11	5.318	.5046	663.3	.1605-02
37	135.00	.96700	1134.0	.1303	.1634	.1873	49.83	6.491	.5073	666.9	.1972-02
37	135.00	.98000	1135.0	.1207	.1513	.1732	50.08	6.045	.5050	663.8	.1826-02
37	135.00	.99400	1136.0	.1169	.1460	.1667	50.84	5.943	.4976	654.1	.1762-02
36	175.00	.95300	1016.0	.1278	.1579	.1789	55.70	7.121	.4744	651.1	.1950-02
36	175.00	.96700	1017.0	.1530	.1893	.2146	55.19	8.442	.4791	657.6	.2350-02
36	175.00	.98000	1018.0	.1167	.1444	.1638	55.32	6.458	.4779	655.9	.1793-02
36	175.00	.99400	1019.0	.9917-01	.1224	.1386	55.91	5.544	.4725	648.5	.1520-02
36	180.00	.11500	1000.0	.8366-01	.1017	.1141	59.76	5.000	.4572	600.1	.1266-02
36	180.00	.20000	1001.0	.2404-01	.2924-01	.3278-01	59.76	1.437	.4372	600.1	.3638-03
36	180.00	.22500	1002.0	.1541-01	.1872-01	.2098-01	59.92	.9231	.4358	598.2	.2330-03
36	180.00	.25000	1003.0	.1422-01	.1729-01	.1937-01	59.93	.8524	.4357	598.0	.2151-03
36	180.00	.30000	1004.0	.2250-01	.2739-01	.3072-01	59.53	1.340	.4394	603.1	.3408-03
36	180.00	.40000	1005.0	.4779-01	.5811-01	.6514-01	59.83	2.860	.4366	599.3	.7230-03
36	180.00	.50000	1006.0	.5035-01	.6206-01	.6965-01	59.31	3.022	.4414	605.8	.7719-03
36	180.00	.55000	1007.0	.6151-01	.7494-01	.8412-01	59.23	3.643	.4421	606.7	.9322-03
36	180.00	.60000	1008.0	.5475-01	.6681-01	.7508-01	59.80	3.220	.4460	612.1	.8309-03
36	180.00	.65000	1009.0	.5522-01	.6737-01	.7571-01	58.82	3.248	.4459	612.0	.8379-03
36	180.00	.70000	1010.0	.5585-01	.6819-01	.7666-01	58.63	3.274	.4476	614.3	.8480-03
36	180.00	.75000	1011.0	.1477	.1204	.2028	58.68	8.669	.4472	613.7	.2243-02
36	180.00	.80000	1012.0	.1465	.1795	.2023	57.65	8.445	.4565	626.6	.2231-02
36	180.00	.85000	1013.0	.1152	.1411	.1589	57.93	6.675	.4540	623.1	.1753-02
36	180.00	.92500	1014.0	.6450-01	.1033	.1171	57.10	4.825	.4616	633.6	.1290-02
36	225.00	.11500	1020.0	.5893-01	.7156-01	.8016-01	60.14	3.544	.4336	595.3	.8906-03
36	225.00	.14300	1021.0	.5418-01	.6578-01	.7367-01	60.22	3.263	.4330	594.4	.8187-03
36	225.00	.17100	1022.0	.5551-01	.6741-01	.7550-01	63.18	3.341	.4334	594.9	.8389-03
36	225.00	.20000	1023.0	.2001-01	.2430-01	.2722-01	60.17	1.204	.4335	595.0	.3024-03
36	225.00	.30000	1024.0	.4567-02	.5551-02	.5221-02	59.93	.2737	.4357	598.0	.6908-04
36	225.00	.40000	1025.0	.4539-01	.5996-01	.6718-01	60.17	2.971	.4336	595.1	.7464-03
36	225.00	.50000	1026.0	.1219	.1482	.1662	59.78	7.287	.4371	599.9	.1845-02
36	225.00	.55000	1027.0	.1291	.1570	.1760	59.79	7.719	.4370	595.8	.1953-02
36	225.00	.60000	1028.0	.1038	.1254	.1418	59.45	6.172	.4401	604.1	.1573-02
36	225.00	.65000	1029.0	.8442-01	.1028	.1153	59.50	5.023	.4396	603.4	.1278-02
36	225.00	.70000	1030.0	.7097-01	.8642-01	.9698-01	59.38	4.214	.4407	604.9	.1075-02
36	225.00	.80000	1031.0	.6353-01	.7748-01	.8703-01	58.99	3.748	.4443	609.8	.9636-03

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AVES 3.5-211 1H4B

ARC3.5-211(1H4B)OTS/117PLE/P/TRIP(0+S)

PAGE 48

(RNSCOM)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/MREF R=0.9	H/MREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
36	225.00	.87500	1032.0	.4051-01	.4937-01	.5542-01	59.20	2.398	.4424	607.2	.6141-03
36	225.00	.92500	1033.0	.2784-01	.3398-01	.3818-01	58.78	1.636	.4462	612.4	.4225-03
36	230.00	.95300	1034.0	.4015-01	.4909-01	.5523-01	58.29	2.340	.4507	618.6	.6103-03
36	230.00	.98000	1035.0	.4854-01	.5941-01	.6690-01	58.01	2.816	.4533	622.1	.7386-03
36	230.00	.99000	1036.0	.5529-01	.6769-01	.7624-01	57.91	3.202	.4542	623.3	.8414-03
36	230.00	.99400	1037.0	.5230-01	.6402-01	.7211-01	57.92	3.029	.4541	623.2	.7959-03
36	270.00	.80000-02	1040.0	.5040	.6169	.6948	57.96	29.21	.4537	622.7	.7669-02
36	270.00	.10000-00	1041.0	.2157	.2622	.2939	59.85	12.91	.4365	599.0	.3263-02
36	270.00	.12000	1042.0	.1519	.1845	.2066	60.22	9.149	.4330	594.4	.2256-02
36	270.00	.13400	1043.0	.2441	.2965	.3323	60.01	14.65	.4350	597.0	.3690-02
36	270.00	.17300	1045.0	.4860	.5901	.6609	60.23	29.28	.4330	594.2	.7344-02
36	270.00	.18600	1046.0	.8642-01	.1049	.1175	60.20	5.203	.4332	594.6	.1306-02
36	270.00	.19300	1048.0	.7648-01	.9293-01	.1041	59.98	4.587	.4352	597.3	.1156-02
36	270.00	.20000	1049.0	.5291-01	.6432-01	.7209-01	59.86	3.167	.4364	598.9	.8003-03
36	270.00	.25000	1050.0	.4516-01	.5490-01	.6154-01	59.85	2.703	.4364	599.0	.6832-03
36	270.00	.30000	1051.0	.3104-01	.3775-01	.4232-01	59.77	1.856	.4372	600.0	.4697-03
36	270.00	.40000	1052.0	.3273-01	.3988-01	.4476-01	59.27	1.940	.4417	606.3	.4961-03
36	270.00	.50000	1053.0	.3986-01	.4852-01	.5444-01	59.48	2.371	.4398	603.7	.6036-03
36	270.00	.60000	1054.0	.5377-01	.6554-01	.7359-01	59.14	3.180	.4430	608.0	.8152-03
36	270.00	.70000	1055.0	.7398-01	.9023-01	.1014	58.94	4.361	.4447	610.4	.1122-02
36	270.00	.80000	1056.0	.5435-01	.6627-01	.7444-01	59.01	3.208	.4441	609.5	.8243-03
36	270.00	.90000	1057.0	.1763	.2150	.2415	59.02	10.41	.4440	609.4	.2674-02
36	270.00	.97500	1058.0	.2734-01	.3331-01	.3739-01	59.22	1.619	.4422	607.0	.4143-03
36	270.00	.98500	1059.0	.2492-01	.3035-01	.3405-01	59.36	1.479	.4409	605.1	.3775-03
36	270.00	.99500	1060.0	.3295-01	.4019-01	.4515-01	58.94	1.942	.4447	610.4	.4999-03
36	270.00	.99700	1061.0	.3572-01	.4362-01	.4905-01	58.57	2.092	.4481	615.1	.5424-03
36	270.00	.99900	1062.0	.3808-01	.4658-01	.5244-01	58.12	2.213	.4522	620.7	.5791-03
36	270.00	.99950	1063.0	.3835-01	.4694-01	.5286-01	57.99	2.224	.4535	622.4	.5936-03
36	270.00	.99990	1064.0	.3959-01	.4846-01	.5457-01	57.97	2.295	.4536	622.6	.6024-03
36	315.00	.1500	1065.0	.1138	.1387	.1557	59.19	6.736	.4425	607.3	.1725-02
36	315.00	.1700	1066.0	.8341-01	.1016	.1141	59.22	4.939	.4422	606.9	.1264-02
36	315.00	.1900	1067.0	.1356	.1652	.1855	59.25	8.036	.4419	606.5	.2055-02
36	315.00	.2000	1068.0	.1143	.1393	.1564	59.13	6.758	.4430	608.1	.1733-02
36	315.00	.2000	1070.0	.6355-01	.7764-01	.8733-01	58.47	3.715	.4491	616.4	.9654-03
36	315.00	.6000	1071.0	.6271-01	.7668-01	.8629-01	58.25	3.653	.4511	619.1	.9533-03
36	315.00	.7000	1072.0	.6914-01	.8452-01	.9509-01	58.32	4.032	.4504	618.2	.1051-02
36	315.00	.8000	1073.0	.7550-01	.9240-01	.1040	58.00	4.379	.4533	622.2	.1149-02
36	315.00	.95300	1074.0	.3734-01	.4578-01	.5161-01	57.51	2.147	.4578	628.3	.5689-03
36	315.00	.96700	1075.0	.7052-01	.8708-01	.9867-01	53.27	3.756	.4743	623.5	.1053-02
37	315.00	.98000	1076.0	.8206-01	.1014	.1150	53.11	4.358	.4758	625.4	.1226-02
37	315.00	.99400	1077.0	.9261-01	.1144	.1297	53.18	4.925	.4751	624.5	.1383-02

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AMES 3.5-211 1H48

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ARC3.9-211(1H48)OTS/NIPPLE/P/TRIP(0+S) SRB

(RNBC03)

SRB

## PARAMETRIC DATA

ALPHA = 10.00 BETA = .0000 RV/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
43	10.00	.0000	5.300	4.620	405.3	1359.	335.3	.5338	211.1	.2122-03	3775.	.1750-01
44	10.00	.0000	5.300	4.841	402.7	1322.	323.2	.5306	203.5	.2188-03	3706.	.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	H/HVT	TH DEG. R	STN NO R=0.9
44	.00000	.95300	1084.0	.1374	.1691	.1912	55.30	7.598	.4669	628.9	.2081-02
44	76.000	.11500	1094.0	.1564	.1905	.2139	57.98	9.058	.4418	595.1	.2348-02
44	76.000	.12600	1095.0	.8586-01	.1046	.1174	58.05	4.984	.4412	594.2	.1289-02
44	76.000	.20000	1097.0	.3569-01	.8186-01	.9185-01	58.11	3.905	.4407	593.6	.1009-02
44	76.000	.40000	1098.0	.2577-01	.3266-01	.4877-01	57.62	2.074	.4406	593.4	.5356-03
44	76.000	.60000	1099.0	.2386-01	.2822-01	.3293-01	56.51	1.543	.4452	593.6	.4024-03
44	76.000	.80000	1100.0	.5354-01	.6556-01	.7461-01	55.10	2.950	.4555	613.5	.3598-03
44	76.000	.87500	1101.0	.5637-01	.6947-01	.7861-01	53.00	3.101	.4687	631.3	.8116-03
44	90.000	.50000-01	1102.0	.1700	.2072	.2327	57.85	9.837	.4697	632.5	.8548-03
44	90.000	.10200+00	1103.0	.1645	.2002	.2246	58.26	9.583	.4429	596.6	.2553-02
44	90.000	.14600	1105.0	.5691-01	.8143-01	.9134-01	58.25	3.898	.4392	591.5	.2467-02
44	90.000	.95700	1111.0	.6438-01	.8023-01	.9149-01	52.44	3.376	.4393	591.6	.1004-02
44	90.000	.98000	1112.0	.6358-01	.7923-01	.9035-01	52.43	3.335	.4937	664.9	.9858-03
44	90.000	.99+00	1113.0	.6718-01	.8344-01	.9492-01	53.19	3.573	.4936	664.8	.9736-03
44	104.00	.11500	1114.0	.1189	.1447	.1624	58.17	6.915	.4867	655.5	.1026-02
44	104.00	.12800	1115.0	.6192-01	.7537-01	.8455-01	58.24	3.606	.4401	592.7	.1784-02
44	104.00	.14600	1116.0	.5030-01	.6122-01	.6968-01	58.21	2.928	.4394	591.8	.9288-03
44	104.00	.20000	1117.0	.3926-01	.4779-01	.5362-01	58.22	2.286	.4397	592.2	.7545-03
44	104.00	.40000	1118.0	.2350-01	.2865-01	.3218-01	57.75	1.357	.4396	592.1	.5890-03
44	104.00	.60000	1119.0	.2183-01	.2674-01	.3013-01	56.52	1.234	.4440	598.0	.3530-03
44	104.00	.80000	1120.0	.6973-01	.8591-01	.9719-01	55.08	3.841	.4555	613.5	.3293-03
44	104.00	.87500	1121.0	.6462-01	.7960-01	.9003-01	55.13	3.563	.4680	631.6	.1057-02
44	135.00	.11500	1122.0	.7601-01	.9258-01	.1039	58.03	4.411	.4685	631.0	.9794-03
44	135.00	.14600	1123.0	.2185-01	.2663-01	.2988-01	58.06	1.269	.4414	594.4	.1141-02
44	135.00	.17700	1124.0	.2460-01	.2996-01	.3362-01	58.05	1.428	.4411	594.2	.3691-03

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AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(10+S) SRB

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
44	135.00	20000	1125.0	3236-01	3941-01	4422-01	58.08	1.879	4409	593.8	4856-03
44	135.00	30000	1126.0	4596-01	5603-01	6293-01	57.76	2.655	4438	597.8	5904-03
44	135.00	50000	1127.0	2197-01	2684-01	3018-01	57.27	1.258	4485	604.1	3306-03
44	135.00	60000	1128.0	2105-01	2578-01	2904-01	56.59	1.191	4548	612.6	3175-03
44	135.00	70000	1129.0	2714-01	3327-01	3751-01	56.31	1.528	4574	616.1	4097-03
44	135.00	80000	1130.0	5202-01	6405-01	7242-01	55.23	2.873	4675	629.7	7881-03
44	135.00	87500	1131.0	5304-01	6524-01	7371-01	55.49	2.943	4651	626.4	8029-03
44	135.00	92500	1132.0	5920-01	7308-01	8279-01	54.59	3.232	4735	637.8	8890-03
44	135.00	95300	1133.0	6493-01	8052-01	9151-01	53.53	3.476	4835	651.1	9900-03
44	135.00	96700	1134.0	7944-01	9860-01	1121	53.33	4.237	4854	653.7	1212-02
44	135.00	98000	1135.0	6048-01	7499-01	8521-01	53.56	3.239	4832	650.7	9220-03
44	135.00	99400	1136.0	706-01	6437-01	7300-01	54.22	2.823	4770	642.5	7917-03
43	175.00	95300	1016.0	79.7-01	9748-01	1097	59.38	4.733	4519	631.4	1223-02
43	175.00	96700	1017.0	1018	1247	1405	58.93	5.999	4559	637.1	1564-02
43	175.00	98000	1018.0	8540-01	1046	1178	59.02	5.040	4552	636.0	1312-02
43	175.00	99400	1019.0	7495-01	9163-01	1031	59.51	4.460	4508	629.9	1149-02
43	180.00	11500	1000.0	5776-01	6986-01	7803-01	62.66	3.619	4226	590.6	8776-03
43	180.00	20000	1001.0	1932-01	2337-01	2610-01	62.69	1.211	4224	590.2	2935-03
43	180.00	22500	1002.0	1536-01	1957-01	2074-01	62.81	9649	4213	588.7	2333-03
43	180.00	25000	1003.0	1070-01	1293-01	1444-01	62.83	6722	4211	588.4	1625-03
43	180.00	30000	1004.0	1732-01	2096-01	2342-01	62.49	1.082	4241	592.5	2632-03
43	180.00	35000	1005.0	4954-01	5997-01	6703-01	62.36	3.089	4253	594.2	7531-03
43	180.00	40000	1006.0	4877-01	5904-01	6600-01	62.34	3.040	4254	594.5	7416-03
43	180.00	45000	1007.0	3109-01	4750-01	5600-01	61.93	2.222	4291	599.6	5463-03
43	180.00	50000	1008.0	2677-01	3247-01	3633-01	61.91	1.925	4300	600.9	4733-03
43	180.00	55000	1010.0	8478-01	1028	1151	61.80	5.239	4303	601.2	4077-03
43	180.00	60000	1011.0	6245-01	7597-01	8520-01	60.91	3.803	4357	612.4	3555-03
43	180.00	65000	1012.0	7948-01	9659-01	1082	61.20	4.864	4414	619.7	1213-02
43	180.00	70000	1013.0	6196-01	7547-01	8470-01	60.55	3.752	4357	616.8	9470-03
43	180.00	75000	1014.0	4386-01	5296-01	5909-01	63.17	2.771	4181	584.2	654-03
43	225.00	11500	1020.0	5093-01	6148-01	6898-01	63.26	3.222	4173	583.1	7726-03
43	225.00	20000	1021.0	1339-01	1617-01	1805-01	63.11	8451	4186	584.5	2032-03
43	225.00	25000	1023.0	8721-02	1054-01	1176-01	62.96	5490	4200	587.9	1324-03
43	225.00	30000	1024.0	4460-01	5390-01	6018-01	62.87	2.804	4207	587.2	6772-03
43	225.00	35000	1026.0	5030-01	6079-01	6786-01	62.93	3.165	4232	587.2	7637-03
43	225.00	40000	1027.0	4880-01	5904-01	6596-01	62.58	3.054	4233	591.5	7417-03
43	225.00	45000	1029.0	4489-01	5430-01	6046-01	62.63	2.812	4229	590.9	582-03
43	225.00	50000	1030.0	4176-01	5052-01	5645-01	62.54	2.611	4237	592.1	6347-03
43	225.00	55000	1031.0	5935-01	7191-01	8041-01	62.15	3.689	4272	596.9	9331-03
43	225.00	60000	1032.0	3669-01	4443-01	4966-01	62.30	2.286	4258	595.0	550-03
43	225.00	65000	1033.0	2769-01	3356-01	3754-01	61.99	1.716	4286	598.9	4214-03
43	230.00	95300	1034.0	4841-01	5876-01	6579-01	61.60	2.982	4321	603.8	7372-03

DATE 05 MAR 76	AXES 3.5-211 IH48	ARC3.5-211(IH48)OTS/NIPLE/P/TRIPO+S)	SRB	HM/HT	TM DEO. R	STN NO R-0.9					
RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TM DEO. R	STN NO R-0.9
43	230.00	96700	1035.0	.6419-01	.7797-01	.8735-01	61.35	3.938	.4343	606.0	.9789-03
43	230.00	98000	1036.0	.7352-01	.8934-01	.1001	61.26	4.504	.4351	608.0	.1121-02
43	230.00	99400	1037.0	.7421-01	.9018-01	.1010	61.26	4.546	.4351	608.0	.1132-02
43	270.00	80000-02	1040.0	.4999	.6097	.6829	60.68	30.34	.4403	615.2	.7639-02
43	270.00	10000-00	1042.0	.1985	.2399	.2676	62.98	12.50	.4198	586.5	.3013-02
43	270.00	12000	1043.0	.2312	.2794	.3120	62.89	14.54	.4206	587.7	.3511-02
43	270.00	12700	1044.0	.3345	.4041	.4510	63.00	21.07	.4196	586.3	.5077-02
43	270.00	17300	1046.0	.7373-01	.8898-01	.9925-01	63.34	4.670	.4165	582.0	.1118-02
43	270.00	18600	1048.0	.6621-01	.7994-01	.8919-01	63.18	4.183	.4180	584.0	.1005-02
43	270.00	19300	1049.0	.5075-01	.6130-01	.6841-01	63.07	3.201	.4190	585.4	.7703-03
43	270.00	20000	1050.0	.5364-01	.6479-01	.7231-01	63.05	3.382	.4191	585.6	.8141-03
43	270.00	25000	1051.0	.4227-01	.5107-01	.5700-01	62.99	2.663	.4196	586.4	.6416-03
43	270.00	30000	1052.0	.4962-01	.6003-01	.6706-01	62.58	3.105	.4233	591.5	.7540-03
43	270.00	40000	1053.0	.5315-01	.6426-01	.7177-01	62.76	3.356	.4217	589.3	.8073-03
43	270.00	50000	1054.0	.5369-01	.6497-01	.7259-01	62.51	3.356	.4256	592.4	.8161-03
43	270.00	60000	1055.0	.5743-01	.6954-01	.7774-01	62.32	3.579	.4240	594.7	.8735-03
43	270.00	70000	1056.0	.5911-01	.7154-01	.7995-01	62.43	3.690	.4247	593.4	.6966-03
43	270.00	75000	1057.0	.2257	.2732	.3053	62.43	14.09	.4247	593.4	.3431-02
43	270.00	80000	1058.0	.2259-01	.3471-01	.3978-01	62.57	1.795	.4234	591.7	.3360-03
43	270.00	87500	1059.0	.2436-01	.2948-01	.3294-01	62.55	1.524	.4236	591.9	.3703-03
43	270.00	92500	1060.0	.3128-01	.3799-01	.4237-01	62.19	1.945	.4268	596.4	.4759-03
43	270.00	95300	1061.0	.3748-01	.4545-01	.5087-01	61.84	2.318	.4300	600.8	.5799-03
43	270.00	96700	1062.0	.3541-01	.4299-01	.4914-01	61.49	2.177	.4330	605.1	.5397-03
43	270.00	98000	1063.0	.3425-01	.4150-01	.4660-01	61.36	2.101	.4342	606.7	.5222-03
43	270.00	99400	1064.0	.3515-01	.4270-01	.4784-01	61.36	2.157	.4269	606.8	.5351-03
43	315.00	11500	1065.0	.1494	.1810	.2023	62.18	9.288	.4253	596.5	.2272-02
43	315.00	17100	1066.0	.1175	.1423	.1590	62.36	7.328	.4243	594.3	.1787-02
43	315.00	20000	1067.0	.1559	.1887	.2103	62.47	12.44	.4243	592.9	.3028-02
43	315.00	30000	1068.0	.1039	.1250	.1409	62.04	6.448	.4282	593.8	.2370-02
43	315.00	50000	1069.0	.9510-01	.1153	.1290	61.96	5.892	.4289	593.3	.1582-02
43	315.00	60000	107.0	.9746-01	.1183	.1324	61.76	6.021	.4306	601.7	.1448-02
43	315.00	70000	1072.0	.1006	.1220	.1355	61.83	6.229	.4295	601.1	.1485-02
43	315.00	80000	1073.0	.1203	.1460	.1635	61.63	7.414	.4318	603.4	.1533-02
43	315.00	90000	1074.0	.7689-01	.9348-01	.1048	61.09	4.697	.4365	610.1	.1633-02
43	315.00	95300	1075.0	.1077	.1320	.1409	56.26	6.057	.4579	616.7	.1173-02
44	315.00	96700	1075.0	.1077	.1320	.1409	56.26	6.057	.4579	616.7	.1625-02
44	315.00	98000	1075.0	.9715-01	.1152	.1344	56.15	5.455	.4589	618.1	.1467-02
44	315.00	99400	1077.0	.1017	.1247	.1406	56.23	5.718	.4581	617.0	.1535-02

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AMES 3.5-211 .H\*8

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(RNBC07)

ARC3.5-211(IH\*8)OTS/NIPPLE/P/TRIP/INTS SRB

SRB

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
52	.0000	.0000	5.300	4.974	405.1	1307.	319.2	.5355	201.0	.2235-03	3683.	.1750-01
53	.0000	.0000	5.300	4.858	405.9	1324.	323.7	.5347	203.9	.2201-03	3709.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HHT	TW DEG. R	STN NO R=0.9
53	.0000	.9330	1084.0	.4423-01	.5412-01	.6093-01	57.13	2.527	.4328	610.8	.6546-03
53	.76.000	.11500	1094.0	.1597	.1921	.2147	60.17	9.551	.4246	572.9	.2363-02
53	.76.000	.12300	1095.0	.8711-01	.1054	.1178	60.22	5.246	.4241	572.2	.1297-02
53	.76.000	.14600	1095.0	.5641-01	.6826-01	.7527-01	60.26	3.399	.4238	571.7	.9395-03
53	.76.000	.20000	1097.0	.4716-01	.5704-01	.6371-01	60.36	2.846	.4228	570.5	.7015-03
53	.76.000	.40000	1098.0	.5588-01	.6890-01	.7704-01	59.94	3.410	.4267	575.7	.8472-03
53	.76.000	.45000	1099.0	.5442-01	.6618-01	.7420-01	58.81	3.200	.4372	589.9	.8134-03
53	.76.000	.50000	1100.0	.5842-01	.7143-01	.8037-01	57.35	3.351	.4508	608.1	.8772-03
53	.76.000	.55000	1101.0	.4853-01	.5939-01	.6687-01	57.10	2.771	.4531	611.3	.7293-03
53	.76.000	.60000	1102.0	.1835	.2221	.2483	60.09	11.03	.4254	573.9	.2732-02
53	.76.000	.65000	1103.0	.1708	.2065	.2306	60.47	10.32	.4219	569.1	.2540-02
53	.76.000	.70000	1105.0	.6513-01	.7875-01	.8795-01	60.46	3.938	.4219	569.2	.9697-03
53	.76.000	.75000	1110.0	.6682-01	.8258-01	.9362-01	54.63	3.650	.4761	642.3	.1073-02
53	.76.000	.80000	1111.0	.9004-01	.11.7	.1271	53.65	4.831	.4832	654.6	.370-02
53	.76.000	.85000	1112.0	.1016	.1262	.1435	53.59	5.446	.4858	655.4	.1545-02
53	.76.000	.90000	1113.0	.1051	.1299	.1474	54.49	5.725	.4774	644.0	.1593-02
53	.76.000	.95000	1114.0	.1477	.1787	.1997	60.33	8.914	.4231	570.8	.2198-02
53	.76.000	.98000	1115.0	.8818-01	.1066	.1191	60.41	5.327	.4224	569.8	.1312-02
53	.76.000	.99000	1116.0	.5690-01	.6882-01	.7687-01	60.39	3.437	.4225	570.0	.8465-03
53	.76.000	.99500	1117.0	.4559-01	.5533-01	.6291-01	60.49	2.818	.4217	568.9	.5929-03
53	.76.000	.99900	1118.0	.4782-01	.5788-01	.6468-01	60.18	2.878	.4245	572.8	.7119-03
53	.76.000	.99950	1119.0	.5103-01	.6206-01	.6958-01	58.79	3.000	.4374	590.1	.7627-03
53	.76.000	.99990	1120.0	.6321-01	.7730-01	.8700-01	57.27	3.620	.4515	609.1	.9492-03
53	.76.000	.99995	1121.0	.7195-01	.8805-01	.9314-01	57.10	4.108	.4531	611.2	.1081-02
53	.76.000	.99999	1122.0	.1196	.1447	.1617	60.22	7.203	.4241	572.2	.1765-02
53	.76.000	.99999	1123.0	.2294-01	.2776-01	.3101-01	60.30	1.383	.4234	571.3	.3414-03

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AVES 3.5-211 1H4E

PAGE 53

(RNC07)

ARC3.5-211 (1H4)OTS/NIPPLE/P/TRIP/INTS SRB

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FTSEC	ODOT BTU/ FTSEC	H/HHT	TW DEG. R	STN NO R=0.9
53	135.00	.17700	1124.0	.2675-01	.3236-01	.7615-01	60.33	1.614	.4232	570.9	.3981-03
53	135.00	.20000	1125.0	.3685-01	.4457-01	.4979-01	60.38	2.225	.4226	570.2	.5483-03
53	135.00	.30000	1126.0	.4474-01	.5417-01	.6054-01	60.09	2.689	.4253	573.8	.6661-03
53	135.00	.50000	1127.0	.3440-01	.4172-01	.4668-01	59.59	2.050	.4299	580.0	.5129-03
53	135.00	.60000	1128.0	.5273-01	.6411-01	.7187-01	58.86	3.104	.4367	589.2	.7879-03
53	135.00	.70000	1129.0	.5604-01	.6823-01	.7657-01	58.44	3.275	.4407	594.5	.8364-03
53	135.00	.80000	1130.0	.8167-01	.9936-01	.1124	57.33	4.683	.4509	608.3	.1226-02
53	135.00	.87500	1131.0	.8499-01	.1039	.1169	57.42	4.880	.4501	607.2	.1276-02
53	135.00	.92500	1132.0	.7200-01	.8843-01	.9981-01	56.18	4.045	.4617	622.8	.1035-02
53	135.00	.95300	1133.0	.1150	.1420	.1609	54.82	6.305	.4743	639.9	.1742-02
53	135.00	.96700	1134.0	.1469	.1816	.2060	54.46	7.998	.4777	644.5	.2227-02
53	135.00	.98000	1135.0	.1379	.1703	.1931	54.73	7.547	.4752	641.0	.2589-02
53	135.00	.93400	1136.0	.1305	.1607	.1817	55.50	7.241	.4680	631.4	.1971-02
53	135.00	.95300	1016.0	.1040	.1287	.1461	53.51	5.564	.4794	637.8	.1554-02
53	135.00	.95700	1017.0	.1453	.1802	.2049	52.99	7.697	.4843	644.3	.2190-02
53	135.00	.93300	1018.0	.1174	.1455	.1653	53.14	6.238	.4768	642.3	.1768-02
53	135.00	.93400	1019.0	.1174	.1455	.1653	53.78	5.458	.4768	634.4	.1525-02
53	135.00	.11500	1000.0	.1183	.1441	.1618	57.51	6.804	.4416	587.5	.1755-02
53	135.00	.20000	1001.0	.4300-01	.5235-01	.5874-01	57.64	2.479	.4403	585.8	.1755-02
53	135.00	.20000	1002.0	.2430-01	.3449-01	.3908-01	57.78	1.400	.4350	584.1	.3596-03
53	135.00	.25000	1003.0	.2859-01	.3779-01	.3902-01	57.81	1.652	.4387	583.7	.4236-03
53	135.00	.30000	1004.0	.4249-01	.5778-01	.5813-01	57.43	2.441	.4423	588.4	.5306-03
53	135.00	.40000	1005.0	.4386-01	.5339-01	.5989-01	57.75	2.533	.4393	584.5	.6503-03
53	135.00	.50000	1006.0	.8002-01	.9157-01	.1096	57.24	4.580	.4441	590.9	.1188-02
53	135.00	.55000	1007.0	.8009-01	.9157-01	.1097	57.17	4.578	.4448	591.8	.1189-02
53	135.00	.60000	1008.0	.8025-01	.1078	.1213	55.71	5.004	.4491	597.5	.1313-02
53	135.00	.65000	1009.0	.8339-01	.1019	.1146	56.66	4.725	.4496	598.1	.1241-02
53	135.00	.70000	1010.0	.5782-01	.8292-01	.9331-01	56.53	3.834	.4308	599.7	.1003-02
53	135.00	.75000	1011.0	.1541	.1885	.2121	55.43	8.695	.4518	601.0	.2294-02
53	135.00	.80000	1012.0	.1318	.1617	.1824	55.57	7.323	.4599	611.8	.1367-02
53	135.00	.85000	1013.0	.9406-01	.1202	.1355	55.89	5.481	.4568	619.5	.1463-02
53	135.00	.90000	1014.0	.5675-01	.5981-01	.7889-01	54.96	3.119	.4655	619.5	.6491-03
53	135.00	.92500	1015.0	.5565-01	.1056	.1184	57.93	5.031	.4377	582.3	.1297-02
53	135.00	.14300	1021.0	.2074-01	.9915-01	.1100	58.06	4.688	.4364	582.3	.1297-02
53	135.00	.17100	1022.0	.8623-01	.1048	.1175	58.07	5.007	.4363	580.4	.1277-02
53	135.00	.20000	1023.0	.5951-01	.7113-01	.7972-01	58.08	3.398	.4362	580.4	.6655-03
53	135.00	.30000	1024.0	.2451-01	.2982-01	.3344-01	57.87	1.419	.4382	582.9	.3633-03
53	135.00	.40000	1025.0	.3671-01	.4463-01	.5003-01	58.04	2.131	.4365	580.8	.5437-03
53	135.00	.50000	1026.0	.4424-01	.5364-01	.6039-01	57.75	2.555	.4333	584.4	.6559-03
53	135.00	.55000	1027.0	.7037-01	.8564-01	.9607-01	57.76	4.065	.4392	584.3	.1043-02
53	135.00	.60000	1028.0	.6808-01	.8297-01	.9315-01	57.40	3.908	.4426	588.9	.1010-02
53	135.00	.65000	1029.0	.6780-01	.8262-01	.9275-01	57.43	3.894	.4423	588.5	.1006-02
53	135.00	.70000	1030.0	.6655-01	.8112-01	.9109-01	57.33	3.815	.4433	589.8	.9879-03

ORIGINAL PAGE 1  
OF POOR QUALITY

DATE 05 MAR 76

AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP/INTS SRB

RUN NUMBER	PHI	KVL	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	MM/HT	TH DEG. R	STN NO R=0.9
52	225.00	80000	1031.0	.8552-01	.1044	.1173	56.98	4.873	.4466	594.1	.1271-02
52	225.00	81500	1032.0	.3187-01	.3886-01	.4364-01	57.27	1.214	.4439	590.5	.4732-03
52	225.00	92500	1033.0	.2137-01	.2610-01	.2935-01	56.82	1.214	.4481	596.2	.3178-03
52	230.00	95300	1034.0	.3779-01	.4624-01	.5206-01	56.30	2.127	.4529	602.6	.5628-03
52	230.00	95500	1035.0	.5197-01	.6366-01	.7174-01	56.03	2.912	.4556	605.1	.7748-03
52	230.00	95500	1036.0	.5916-01	.7249-01	.8170-01	55.94	3.309	.4564	607.2	.6822-03
52	230.00	95500	1037.0	.5994-01	.7223-01	.8141-01	55.93	3.297	.4564	607.2	.6759-03
52	230.00	80000-02	1040.0	.5875	.6947	.7824	56.22	31.90	.4538	603.7	.6455-02
52	270.00	10000+03	1042.0	.2453	.2980	.3340	58.20	14.28	.4351	578.8	.5331-02
52	270.00	12000	1043.0	.3620	.4280	.4797	58.05	20.43	.4365	580.7	.5214-02
52	270.00	12000	1044.0	.3763	.4573	.5125	58.12	21.87	.4358	579.8	.5572-02
52	270.00	12000	1045.0	.5652	.6868	.7695	58.23	32.91	.4348	578.5	.8327-02
52	270.00	12000	1046.0	.5855-01	.7044	.8090	58.08	4.987	.4362	580.3	.1271-02
52	270.00	12000	1048.0	.7889-01	.9718-01	.1090	57.88	4.624	.4381	582.9	.1184-02
52	270.00	12000	1049.0	.6324-01	.7696-01	.8633-01	57.76	3.653	.4392	584.3	.9374-03
52	270.00	12000	1050.0	.5558-01	.7251-01	.8134-01	57.75	3.441	.4393	584.5	.8833-03
52	270.00	12000	1051.0	.1952-01	.2389-01	.2880-01	57.67	1.132	.4400	585.4	.2035-03
52	270.00	12000	1052.0	.1627-01	.1985-01	.2230-01	57.19	.9306	.4446	591.5	.2417-03
52	270.00	12000	1053.0	.3585-01	.369-01	.4905-01	57.40	2.058	.4426	588.8	.5320-03
52	270.00	12000	1054.0	.4883-01	.6114-01	.6423-01	57.07	2.673	.4457	587.0	.5837-03
52	270.00	12000	1055.0	.8122-01	.9918-01	.1115	56.86	4.619	.4477	582.6	.1638-03
52	270.00	12000	1056.0	.5648-01	.6772-01	.7612-01	56.95	3.160	.4469	583.5	.9374-03
52	270.00	12000	1057.0	.2479	.3026	.3402	56.91	14.11	.4472	585.0	.2584-03
52	270.00	12000	1058.0	.2621-01	.2665-01	.2769-01	57.15	1.155	.4449	591.9	.2035-03
52	270.00	12000	1059.0	.2048-01	.2500-01	.2829-01	57.40	1.167	.4426	588.8	.5320-03
52	270.00	12000	1060.0	.2407-01	.2931-01	.3301-01	57.01	1.372	.4463	593.8	.2417-03
52	270.00	12000	1061.0	.2337-01	.3233-01	.3636-01	56.63	1.493	.4499	598.5	.5320-03
52	270.00	12000	1062.0	.2335-01	.3229-01	.3629-01	56.24	1.667	.4535	603.4	.7748-03
52	270.00	12000	1063.0	.2351-01	.3505-01	.3949-01	56.05	1.604	.4535	603.4	.7748-03
52	270.00	12000	1064.0	.2395-01	.3568-01	.4133-01	56.02	1.672	.4535	603.4	.7748-03
52	270.00	12000	1065.0	.9184-01	.1108	.1244	57.26	5.202	.4439	590.5	.4732-03
52	270.00	12000	1066.0	.8339-01	.1017	.1142	57.23	4.772	.4442	591.0	.4732-03
52	270.00	12000	1067.0	.7569-01	.9717-01	.1091	57.21	4.559	.4444	591.2	.4732-03
52	270.00	12000	1068.0	.7569-01	.9717-01	.1091	57.07	2.659	.4457	593.0	.4732-03
52	270.00	12000	1069.0	.4730-01	.5771-01	.6485-01	56.38	1.619	.4522	601.7	.4732-03
52	270.00	12000	1070.0	.2871-01	.3512-01	.3954-01	56.12	1.619	.4546	604.9	.4732-03
52	270.00	12000	1071.0	.1607-01	.1967-01	.2216-01	56.12	1.667	.4534	603.3	.4732-03
52	270.00	12000	1072.0	.2395-01	.3670-01	.4133-01	56.25	1.584	.4566	607.5	.4732-03
52	270.00	12000	1073.0	.2874-01	.3473-01	.3914-01	55.91	1.341	.4566	607.5	.4732-03
52	270.00	12000	1074.0	.2433-01	.2962-01	.3341-01	55.58	1.341	.4597	611.5	.4732-03
52	270.00	12000	1075.0	.4455-01	.5445-01	.6116-01	58.05	2.592	.4443	599.4	.4732-03
52	270.00	12000	1076.0	.5112-01	.6238-01	.7010-01	57.87	2.958	.4453	601.6	.4732-03
52	270.00	12000	1077.0	.5279-01	.6442-01	.7238-01	57.89	3.056	.4458	601.6	.4732-03



PARAMETRIC DATA

ALPHA	=	.0000	BETA	=	-5.000	RN/L	=	5.000
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...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
54	.0000	-5.000	5.300	5.027	408.9	1304.	318.4	.5392	200.5	.2257-.03	3579.	-1750-01
55	.0000	-5.000	5.300	4.354	405.7	1309.	319.9	.5349	201.4	.2228-.03	3597.	-1750-01

...YES? NO?...

PN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
54	00000	95300	1084.0	.9348-01	.5352-01	.6051-01	54.87	2.386	.4689	619.6	5478-03
54	76.000	11500	1094.0	.2032	.2470	.2768	58.14		.4361	578.7	5594-02
54	76.000	12800	1095.0	.1613	.1913	.1584	59.17	6.763	.4358		1713-02
54	76.000	14503	1096.0	.2028-01	.2754-01	.1093	59.17	1.670	.4357	578.3	1182-02
54	76.000	20000	1097.0	.2778-01	.7750-01	.8584-01	58.14	3.714	.4352	577.5	3336-02
54	76.000	40000	1098.0	.6520-01	.8152-01	.9028-01	57.56	3.837	.4378	581.0	9760-02
54	76.000	60000	1099.0	.6286-01	.7933-01	.8510-01	57.28	3.601	.4442	559.4	8235-02
54	76.000	80000	1100.0	.9300-01	.1032	.1232	55.60	4.948	.4600	610.5	1223-02
54	76.000	97500	1101.0	.5789-01	.7131-01	.8056-01	55.09	3.194	.4649	616.5	8231-02
54	90.000	50000-01	1102.0	.2463	.2334	.3356	58.14	14.32	.4332	578.7	3330-02
54	90.000	10000-00	1103.0	.2341	.2641	.3183	59.45	13.68	.4337	578.7	1715-02
54	90.000	14500	1105.0	.9701-01	.1178	.1320	58.39	5.655	.4337	575.6	1230-02
54	90.000	95300	1110.0	.8292-01	.1032	.1175	52.37	4.342	.4906	651.1	347-02
54	90.000	35000	1111.0	.9474-01	.1184	.1353	51.41	4.871	.4936	652.1	1710-02
54	90.000	98000	1112.0	.1118	.1339	.1600	51.22	5.729	.4936	653.1	3330-02
54	90.000	99400	1113.0	.1155	.1441	.1643	52.00	6.009	.4941	655.4	3330-02
54	04.000	11500	1114.0	.1957	.2377	.2653	58.30	7.092	.4337	575.3	3330-02
54	04.000	1213	1115.0	.1213	.1473	.1650	58.40	11.42	.4337	575.3	3330-02
54	04.000	12800	1116.0	.8276-01	.1000	.1121	59.36	4.807	.4337	575.3	3330-02
54	04.000	20000	1117.0	.6550-01	.7953-01	.8908-01	58.43	3.887	.4337	575.3	3330-02
54	04.000	40000	1118.0	.6889-01	.7639-01	.8557-01	58.36	3.670	.4340	576.0	3330-02
54	04.000	58300	1119.0	.5839-01	.7112-01	.7982-01	57.58	3.362	.4414	585.3	3330-02
54	04.000	87000	1120.0	.9156-01	.1124	.1269	55.73	5.108	.4532	608.9	1710-02
54	04.000	97500	1121.0	.1149	.1412	.1595	55.27	6.352	.4532	614.3	3330-02
54	135.000	11500	1122.0	.1509	.1934	.2055	58.26	8.793	.4320	577.3	3330-02
54	135.000	14500	1123.0	.3522-01	.4620-01	.4998-01	58.30	2.141	.4346	578.7	3330-02

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AMES 3.5-211 1M48

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP

SR8

RUN  
NUMBER

PHI

X/L

TC NO

H/HREF  
R=1.0H/HREF  
R=0.9H/HREF  
R=0.85QREF  
BTU/  
FT2SECQDOT  
BTU/  
FT2SEC

H4/H1

TN  
DEG. RSTN NO  
R=0.9

54	135.00	17700	1124.0	.6492-01	.7886-01	.8835-01	58.32	3.785	.4344	576.5	.5562-03
54	135.00	20000	1125.0	.6462-01	.7849-01	.8792-01	58.37	3.772	.4339	575.8	.5516-03
54	135.00	30000	1126.0	.5039-01	.6126-01	.6865-01	58.15	2.530	.4360	578.6	.7426-03
54	135.00	50000	1127.0	.4915-01	.5974-01	.6696-01	58.13	2.857	.4362	578.9	.7243-03
54	135.00	60000	1128.0	.5734-01	.6380-01	.7831-01	57.72	3.309	.4400	594.0	.1040-03
54	135.00	70000	1129.0	.5676-01	.6925-01	.7779-01	57.24	3.250	.4446	590.0	.6391-03
54	135.00	80000	1130.0	.1393	.1712	.1930	55.03	7.830	.4560	603.1	.2073-02
54	135.00	87500	1131.0	.1420	.1742	.1965	55.71	7.912	.4590	603.1	.2109-02
54	135.00	92500	1132.0	.1022	.1261	.1428	54.30	5.549	.4723	626.9	.1526-02
54	135.00	95300	1133.0	.1419	.1761	.2002	52.92	7.507	.4853	644.1	.2129-02
54	135.00	95700	1134.0	.1699	.2113	.2406	52.50	8.920	.4893	649.4	.2554-02
54	135.00	98000	1135.0	.1722	.2140	.2436	52.61	9.057	.4883	648.0	.2587-02
54	135.00	98300	1136.0	.2081	.2494	.2814	55.61	11.30	.4604	613.8	.2040-02
54	135.00	98300	1017.0	.2032	.2494	.2814	55.61	11.30	.4604	613.8	.2040-02
54	135.00	98700	1017.0	.2422	.2980	.3369	55.01	13.32	.4661	621.3	.2570-02
54	135.00	98000	1018.0	.1942	.2399	.2700	55.00	10.68	.4661	621.3	.2570-02
54	135.00	98400	1019.0	.1721	.2114	.2386	55.44	9.540	.4620	615.3	.2555-02
54	135.00	11500	1000.0	.1487	.1802	.2016	58.99	8.770	.4265	571.3	.2200-02
54	135.00	20000	1001.0	.6956-01	.8428-01	.9425-01	59.13	4.113	.4273	589.6	.2020-02
54	135.00	22500	1002.0	.5844-01	.7076-01	.7910-01	59.29	3.465	.4259	587.6	.2040-02
54	135.00	25000	1003.0	.5960-01	.7321-01	.8232-01	59.34	2.894	.4253	587.6	.2040-02
54	135.00	30000	1004.0	.4598-01	.5692-01	.6368-01	59.99	2.773	.4285	571.3	.2040-02
54	135.00	30000	1005.0	.6402-01	.7749-01	.8580-01	59.39	3.822	.4249	566.3	.2040-02
54	135.00	30000	1006.0	.5954-01	.7215-01	.8070-01	59.07	3.617	.4279	570.4	.2040-02
54	135.00	30000	1007.0	.5365-01	.6350	.7150	59.15	5.894	.4271	569.4	.2040-02
54	135.00	30000	1008.0	.1005	.1220	.1355	58.87	5.923	.4297	572.3	.2040-02
54	135.00	30000	1009.0	.1127	.1440	.1611	58.68	6.332	.4266	572.3	.2040-02
54	135.00	30000	1010.0	.1039	.1253	.1409	58.81	6.104	.4303	573.6	.2040-02
54	135.00	30000	1011.0	.2094	.2541	.2844	58.74	12.20	.4309	574.5	.2040-02
54	135.00	30000	1012.0	.1988	.2418	.2712	57.97	11.52	.4382	574.2	.2040-02
54	135.00	30000	1013.0	.1646	.2003	.2247	57.89	9.631	.4389	585.0	.2040-02
54	135.00	30000	1014.0	.1112	.1358	.1527	56.95	6.332	.4378	585.0	.2040-02
54	135.00	30000	1020.0	.1030	.1246	.1393	59.43	5.121	.4245	585.0	.2040-02
54	135.00	30000	1021.0	.6618-01	.8007-01	.8945-01	59.54	3.940	.4234	584.3	.2040-02
54	135.00	30000	1022.0	.9447-01	.1143	.1277	59.57	5.124	.4235	584.3	.2040-02
54	135.00	30000	1023.0	.8593-01	.1040	.1161	59.57	5.119	.4232	584.3	.2040-02
54	135.00	30000	1024.0	.4255-01	.5126-01	.5729-01	59.39	2.515	.4249	586.4	.2040-02
54	135.00	30000	1025.0	.5361-01	.7634-01	.8595-01	59.59	3.790	.4230	583.9	.2040-02
54	135.00	30000	1026.0	.5644-01	.7195-01	.8042-01	59.36	3.528	.4251	586.4	.2040-02
54	135.00	30000	1027.0	.5656-01	.7087-01	.7920-01	59.44	3.481	.4244	583.9	.2040-02
54	135.00	30000	1028.0	.8564-01	.1038	.1160	59.14	5.063	.4244	583.9	.2040-02
54	135.00	30000	1029.0	.1039	.1222	.1366	59.17	5.969	.4233	583.9	.2040-02
54	135.00	30000	1030.0	.1015	.1230	.1376	59.09	6.001	.4233	572.3	.2040-02

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(RNCDB)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	COOT BTU/ FT2SEC	H/MHT	TM DEG. R	STN NO R=0.9
55	225.00	.83000	1031.0	.1440	.1746	.1954	58.82	8.469	.4302	573.5	-2132-02
55	225.00	.87500	1032.0	.4899-01	.5938-01	.6643-01	59.97	2.889	.4289	571.6	-7250-03
55	225.00	.92500	1033.0	.3695-01	.4486-01	.5024-01	58.51	2.162	.4331	577.4	-5475-03
55	230.00	.95300	1034.0	.6320-01	.7585-01	.8615-01	58.09	4.428	.4370	582.6	-9378-03
55	230.00	.96700	1035.0	.7659-01	.9323-01	.1046	57.81	5.066	.4386	586.1	-1137-02
55	230.00	.98000	1036.0	.8782-01	.1069	.1200	57.69	5.160	.4409	587.7	-1305-02
55	230.00	.99400	1037.0	.8962-01	.1092	.1226	57.57	36.92	.4419	589.1	-1332-02
55	270.00	.82000-02	1040.0	.6414	.7814	.8772	57.55	15.92	.4420	589.3	-5233-02
55	270.00	.10000-00	1042.0	.1830	.2213	.2472	59.64	10.91	.4225	553.2	-2703-02
55	270.00	.12000	1043.0	.2670	.3241	.3622	59.45	23.65	.4243	555.6	-3558-02
55	270.00	.12700	1044.0	.3874	.4697	.5237	59.50	32.32	.4238	554.9	-5274-02
55	270.00	.13400	1045.0	.5423	.6550	.7328	59.60	6.264	.4228	553.7	-8012-02
55	270.00	.17300	1046.0	.1053	.1274	.1423	59.51	5.214	.4237	554.9	-1555-02
55	270.00	.19800	1048.0	.8783-01	.1064	.1189	59.35	4.181	.4232	555.8	-1555-02
55	270.00	.19300	1049.0	.7023-01	.8545-01	.9553-01	59.25	3.702	.4261	558.1	-1573-02
55	270.00	.20000	1050.0	.5247-01	.7555-01	.8458-01	59.26	4.261	.4261	558.1	-1573-02
55	270.00	.25000	1051.0	.4234-01	.5128-01	.5733-01	59.21	2.507	.4265	559.8	-1573-02
55	270.00	.30000	1052.0	.3779-01	.3372-01	.3775-01	58.63	1.631	.4314	562.6	-1573-02
55	270.00	.40000	1053.0	.5945-01	.7209-01	.8067-01	59.83	3.501	.4235	562.6	-1573-02
55	270.00	.50000	1054.0	.5539-01	.6722-01	.7527-01	59.59	3.244	.4324	562.6	-1573-02
55	270.00	.70000	1055.0	.5712-01	.6538-01	.7772-01	58.43	3.339	.4332	562.6	-1573-02
55	270.00	.75000	1057.0	.1874	.2276	.2549	58.41	10.94	.4341	562.6	-1573-02
55	270.00	.80000	1059.0	.3010-01	.3553-01	.4090-01	59.55	1.765	.4318	562.6	-1573-02
55	270.00	.87500	1059.0	.2333-01	.2833-01	.3173-01	58.83	1.377	.4296	562.6	-1573-02
55	270.00	.92500	1060.0	.2882-01	.3475-01	.3892-01	58.49	1.674	.4333	562.6	-1573-02
55	270.00	.95300	1061.0	.2223-01	.2703-01	.3029-01	58.15	1.233	.4365	562.6	-1573-02
55	270.00	.95700	1062.0	.2553-01	.3073-01	.3455-01	57.73	1.461	.4334	562.6	-1573-02
55	270.00	.98000	1063.0	.2833-01	.3523-01	.3957-01	57.54	1.685	.4322	562.6	-1573-02
55	270.00	.99400	1064.0	.3632-01	.4427-01	.4970-01	57.48	2.088	.4311	562.6	-1573-02
55	315.00	.11500	1065.0	.9478-01	.1150	.1287	58.72	5.585	.4311	562.6	-1573-02
55	315.00	.14300	1066.0	.7239-01	.2783-01	.9333-01	53.66	2.46	.4317	562.6	-1573-02
55	315.00	.17100	1067.0	.1107	.1343	.1504	58.64	6.489	.4319	562.6	-1573-02
55	315.00	.20000	1068.0	.7893-01	.9578-01	.1073	58.54	4.618	.4329	562.6	-1573-02
55	315.00	.30000	1069.0	.3205-01	.3993-01	.4371-01	59.01	1.856	.4379	562.6	-1573-02
55	315.00	.40000	1070.0	.4820-01	.5915-01	.6635-01	57.82	2.810	.4350	562.6	-1573-02
55	315.00	.50000	1071.0	.4372-01	.5334-01	.5987-01	57.55	2.520	.4421	562.6	-1573-02
55	315.00	.60000	1072.0	.4114-01	.5010-01	.5623-01	57.69	2.373	.4429	562.6	-1573-02
55	315.00	.70000	1073.0	.5031-01	.6206-01	.6970-01	57.39	2.921	.4435	562.6	-1573-02
55	315.00	.80000	1074.0	.1791-01	.2185-01	.2456-01	57.10	1.022	.4463	562.6	-1573-02
55	315.00	.90000	1075.0	.2629-01	.3223-01	.3634-01	55.65	1.468	.4577	562.6	-1573-02
54	315.00	.95700	1076.0	.3033-01	.3794-01	.4280-01	55.63	1.722	.4593	562.6	-1573-02
54	315.00	.99400	.077.0	.4056-01	.5221-01	.5889-01	55.72	2.371	.4599	562.6	-1573-02

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SPB

ARC3.5-211 (IN-8)OTS/NIPPLE/P/TRIP

SRB

## PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	QHD SLUG/ FT <sup>3</sup>	WINF FT/SEC	SCALE
67	-5.000	-5.000	5.300	4.770	405.2	1340.	327.7	.5333	206.4	.2153-03	3732.	.1750-01
68	-5.000	-5.000	5.300	4.734	404.1	1344.	328.7	.5318	207.0	.2155-03	3738.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	M/HREF R=1.0	M/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	M/HWT	TA DEG. R	STN WD R=0.5
68	03000	.95303	1024.0	.2882-01	.3537-01	.3993-01	57.19	1.643	.4595	553.5	3782-03
68	76.000	.11500	1094.0	.1957	.2368	.2646	61.08	11.95	.4239	555.7	3782-03
68	76.000	.12300	1095.0	.1249	.1511	.1698	61.10	7.630	.4239	555.8	3782-03
68	76.000	.14500	1096.0	.8545-01	.1034	.1156	61.12	5.226	.4235	555.2	3782-03
68	76.000	.20000	1097.0	.8283-01	.1003	.1120	61.17	5.073	.4231	555.6	3782-03
68	76.000	.30000	1099.0	.5849-01	.7065-01	.7924-01	60.72	3.551	.4272	559.3	3782-03
68	76.000	.33000	1100.0	.3374-01	.4101-01	.4597-01	59.73	2.015	.4352	559.3	3782-03
68	76.000	.34000	1101.0	.4815-01	.5395-01	.6339-01	57.81	2.784	.4578	559.3	3782-03
68	76.000	.35000	1101.0	.3539-01	.3750-01	.4229-01	57.32	1.733	.4578	559.3	3782-03
68	76.000	.36000	1102.0	.2478	.2932	.3349	61.16	1.516	.4232	559.3	3782-03
68	76.000	.37000	1103.0	.2350	.2840	.3170	61.53	14.48	.4199	559.3	3782-03
68	76.000	.38000	1103.0	.3258-01	.1119	.1250	61.33	5.678	.4217	559.3	3782-03
68	76.000	.39000	1104.0	.7540-01	.9356-01	.1065	54.20	4.037	.4870	559.3	3782-03
68	76.000	.40000	1104.0	.7268-01	.9065-01	.1035	53.24	3.869	.4853	559.3	3782-03
68	76.000	.41000	1105.0	.2869-01	.1107	.1264	53.11	4.710	.4971	559.3	3782-03
68	76.000	.42000	1105.0	.3140-01	.1135	.1293	54.05	4.970	.4954	559.3	3782-03
68	76.000	.43000	1106.0	.2065	.2458	.2790	61.26	12.63	.4623	559.3	3782-03
68	76.000	.44000	1107.0	.1287	.1556	.1739	61.31	7.831	.4623	559.3	3782-03
68	76.000	.45000	1108.0	.9438-01	.1141	.1275	61.27	5.165	.4623	559.3	3782-03
68	76.000	.46000	1108.0	.6105-01	.7381-01	.8341-01	51.37	3.747	.4623	559.3	3782-03
68	76.000	.47000	1109.0	.4927-01	.5962-01	.6661-01	51.07	3.009	.4623	559.3	3782-03
68	76.000	.48000	1109.0	.6206-01	.7538-01	.8444-01	59.98	3.722	.4623	559.3	3782-03
68	76.000	.49000	1110.0	.9162-01	.1121	.1263	57.85	5.301	.4623	559.3	3782-03
68	76.000	.50000	1110.0	.1054	.1292	.1457	57.48	6.060	.4623	559.3	3782-03
68	76.000	.51000	1122.0	.1810	.2189	.2445	61.18	11.07	.4623	559.3	3782-03
68	76.000	.52000	1123.0	.4117-01	.4980-01	.5553-01	61.19	2.519	.4623	559.3	3782-03

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SR8

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HRT	TH DSO. R	STN NO R=0.9
68	135.00	.17700	1124.0	.7264-01	.8786-01	.9815-01	61.19	4.445	.4229	579.4	.1093-02
68	135.00	.20000	1125.0	.8120-01	.9920-01	.1097	61.24	4.973	.4224	578.7	.1222-02
68	135.00	.20000	1125.0	.6793-01	.8227-01	.9197-01	60.84	4.133	.4261	583.8	.1024-02
68	135.00	.20000	1127.0	.7415-01	.8985-01	.1005	60.69	4.499	.4276	585.8	.1118-02
68	135.00	.60000	1128.0	.8363-01	.1016	.1139	60.61	5.019	.4337	594.2	.1253-02
68	135.00	.70000	1129.0	.8343-01	.1015	.1138	59.61	4.973	.4374	599.2	.1252-02
68	135.00	.80000	1130.0	.1150	.1406	.1892	59.09	6.680	.4512	618.2	.1747-02
68	135.00	.87500	1131.0	.1255	.1536	.1729	57.94	7.272	.4527	620.2	.1928-02
68	135.00	.92500	1132.0	.1005	.1238	.1400	56.30	5.659	.4677	640.8	.1535-02
68	135.00	.95300	1133.0	.1317	.1632	.1854	54.73	7.207	.4822	650.6	.2024-02
68	135.00	.96700	1134.0	.1664	.2067	.2351	54.29	9.037	.4852	655.6	.2563-02
68	135.00	.99000	1135.0	.1749	.2170	.2467	54.43	9.519	.4849	654.3	.2691-02
68	135.00	.99400	1136.0	.1736	.2147	.2435	55.20	9.592	.4778	654.6	.2554-02
67	135.00	.95300	1016.0	.2025	.2374	.2801	55.78	11.19	.4715	644.0	.3580-02
67	135.00	.98700	1017.0	.2325	.2875	.3261	55.12	12.81	.4776	652.3	.3556-02
67	135.00	.99300	1018.0	.1855	.2293	.2630	55.23	10.23	.4765	650.8	.2936-02
67	135.00	.99400	1019.0	.1954	.2354	.2623	55.93	9.913	.4782	652.1	.2430-02
67	135.00	.11500	1000.0	.2012	.2437	.2724	60.70	12.21	.4264	582.2	.3322-02
67	135.00	.20000	1001.0	.9305-01	.1126	.1259	60.86	5.663	.4249	590.7	.3391-02
67	135.00	.22500	1002.0	.9190-01	.1112	.1242	61.06	5.614	.4229	577.5	.3359-02
67	135.00	.30000	1003.0	.7591-01	.9180-01	.1025	61.15	4.842	.4222	582.5	.3359-02
67	135.00	.30000	1004.0	.6502-01	.7975-01	.8834-01	60.68	3.945	.4265	582.5	.3359-02
67	135.00	.30000	1005.0	.7912-01	.9555-01	.1068	61.21	4.842	.4217	582.5	.3359-02
67	135.00	.50000	1006.0	.1272	.1540	.1722	60.83	7.740	.4252	582.5	.3359-02
67	135.00	.55000	1007.0	.1425	.1725	.1928	60.85	8.670	.4253	582.5	.3359-02
67	135.00	.60000	1008.0	.1303	.1632	.1826	60.45	8.141	.4287	583.4	.3359-02
67	135.00	.60000	1009.0	.1303	.1580	.1767	60.50	7.833	.4282	583.4	.3359-02
67	135.00	.60000	1010.0	.1112	.1349	.1509	60.30	6.704	.4300	583.4	.3359-02
67	135.00	.60000	1011.0	.2272	.2577	.3085	59.15	13.166	.4314	583.4	.3359-02
67	135.00	.80000	1012.0	.2062	.2610	.2816	59.21	12.21	.4400	583.4	.3359-02
67	135.00	.80000	1013.0	.1391	.1695	.1932	59.10	8.224	.4410	583.4	.3359-02
67	135.00	.80000	1014.0	.1353	.1636	.1828	61.12	6.372	.4529	583.4	.3359-02
67	225.00	.15300	1020.0	.8882-01	.1077	.1200	61.24	5.443	.4214	583.4	.3359-02
67	225.00	.14300	1021.0	.1264	.1523	.1706	61.27	7.745	.4202	583.4	.3359-02
67	225.00	.20000	1022.0	.1525	.1843	.2058	61.31	8.341	.4207	583.4	.3359-02
67	225.00	.20000	1023.0	.8275-01	.1031	.1118	61.03	5.051	.4233	583.4	.3359-02
67	225.00	.20000	1024.0	.7245-01	.8755-01	.9773-01	61.39	7.446	.4201	583.4	.3359-02
67	225.00	.40000	1025.0	.1268	.1534	.1714	61.03	7.741	.4233	583.4	.3359-02
67	225.00	.40000	1026.0	.1469	.1776	.1984	61.11	8.974	.4233	583.4	.3359-02
67	225.00	.40000	1027.0	.1469	.1776	.1984	61.11	8.974	.4233	583.4	.3359-02
67	225.00	.60000	1028.0	.1465	.1775	.1985	60.72	8.691	.4262	583.4	.3359-02
67	225.00	.60000	1029.0	.1395	.1676	.1873	60.87	8.428	.4249	583.4	.3359-02
67	225.00	.70000	1030.0	.1136	.1377	.1539	60.66	6.894	.4267	583.4	.3359-02

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AMES 3.5-211 1M48

ARC3.5-211 (1M48)OTS/NIPPLE/P/TRIP

PAGE 30

(RNR009)

RUN NUMBER	FBI	X/L	TC NO	M/HREF R=1.0	M/HREF R=0.9	M/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	MM/HY	TM DEG. R	STN NO R=0.9
57	225.00	59000	1031.0	.1728	.2095	.2345	60.31	10.42	.4299	587.2	2338-22
57	225.00	59000	1032.0	.6039-01	.7318-01	.8186-01	60.53	3.653	.4282	584.8	2075-03
57	225.00	59000	1033.0	.5327-01	.6472-01	.7551-01	59.80	3.183	.4345	593.6	2322-03
57	230.00	59000	1034.0	.7511-01	.9269-01	.1040	59.10	4.493	.4410	602.3	1098-22
57	230.00	59000	1035.0	.9513-01	.1050	.1180	58.78	5.063	.4440	606.3	1301-22
57	230.00	59000	1036.0	.9265-01	.1120	.1270	59.65	5.434	.4452	608.0	1400-02
57	230.00	59000	1037.0	.9783-01	.1071	.1204	58.66	5.152	.4453	601.8	1327-02
57	230.00	59000	1040.0	.6447	.7846	.8802	59.28	39.22	.4393	601.0	2343-22
57	230.00	59000	1042.0	.1701	.2055	.2293	61.45	10.45	.4195	601.9	2343-22
57	230.00	59000	1043.0	.3210	.3585	.3885	61.17	16.24	.4211	575.4	2343-22
57	230.00	59000	1044.0	.4454	.5385	.6014	61.21	27.56	.4217	575.0	2343-22
57	230.00	59000	1045.0	.5286	.6390	.7134	61.31	32.41	.4253	574.7	2343-22
57	230.00	59000	1046.0	.1327	.1604	.1792	61.13	8.110	.4234	575.3	2343-22
57	230.00	59000	1049.0	.1266	.1531	.1711	60.94	7.712	.4242	573.2	2343-22
57	230.00	59000	1049.0	.1049	.1269	.1418	60.82	6.373	.4233	580.3	2343-22
57	230.00	59000	1050.0	.5328-01	.1008	.1127	60.82	5.055	.4253	580.3	2343-22
57	230.00	59000	1051.0	.5738-01	.7021-01	.7848-01	60.76	2.523	.4232	580.3	2343-22
57	230.00	59000	1052.0	.4930-01	.5394-01	.6701-01	60.06	2.961	.4232	580.3	2343-22
57	230.00	59000	1053.0	.5372-01	.5511-01	.7283-01	60.47	3.273	.4284	585.3	2343-22
57	230.00	59000	1054.0	.9375-01	.1138	.1275	59.93	5.181	.4354	581.0	2343-22
57	230.00	59000	1055.0	.8397-01	.1057	.1185	59.57	5.181	.4357	585.3	2343-22
57	230.00	59000	1056.0	.8456-01	.1028	.1152	59.74	5.181	.4351	585.3	2343-22
57	230.00	59000	1057.0	.3259	.4046	.4534	59.67	19.18	.4351	585.3	2343-22
57	230.00	59000	1058.0	.3511-01	.4262-01	.4773-01	60.01	5.107	.4327	585.3	2343-22
57	230.00	59000	1059.0	.5691-01	.1926-01	.2156-01	60.32	3.331	.4299	585.3	2343-22
57	230.00	59000	1060.0	.2111-01	.2569-01	.2978-01	59.75	1.283	.4351	585.3	2343-22
57	230.00	59000	1061.0	.1949-01	.2273-01	.2662-01	59.19	1.157	.4402	585.3	2343-22
57	230.00	59000	1062.0	.2930-01	.3256-01	.3993-01	58.71	1.713	.4402	585.3	2343-22
57	230.00	59000	1063.0	.2816-01	.3400-01	.3993-01	59.54	1.618	.4401	585.3	2343-22
57	230.00	59000	1064.0	.3279-01	.3390-01	.4493-01	59.55	1.618	.4401	585.3	2343-22
57	230.00	59000	1065.0	.7433-01	.3140-01	.1023	60.127	4.353	.4401	585.3	2343-22
57	230.00	59000	1066.0	.7319-01	.9993-01	.9346-01	60.09	4.353	.4401	585.3	2343-22
57	230.00	59000	1067.0	.8159-01	.9917-01	.1111	60.01	4.353	.4401	585.3	2343-22
57	230.00	59000	1068.0	.4930-01	.5923-01	.6713-01	59.90	2.856	.4401	585.3	2343-22
57	230.00	59000	1069.0	.3366-01	.4090-01	.4593-01	59.90	1.977	.4401	585.3	2343-22
57	230.00	59000	1070.0	.5599-01	.6821-01	.7656-01	58.53	1.271	.4401	585.3	2343-22
57	230.00	59000	1071.0	.6243-01	.6392-01	.7180-01	58.73	2.082	.4401	585.3	2343-22
57	230.00	59000	1072.0	.1530-01	.5553-01	.6355-01	58.33	2.703	.4401	585.3	2343-22
57	230.00	59000	1073.0	.2992-01	.2523-01	.2840-01	58.13	1.193	.4401	585.3	2343-22
57	230.00	59000	1074.0	.2598-01	.4522-01	.5098-01	58.13	2.156	.4401	585.3	2343-22
57	230.00	59000	1075.0	.3395-01	.4863-01	.5474-01	57.96	2.294	.4401	585.3	2343-22
57	230.00	59000	1076.0	.4293-01	.5255-01	.5916-01	59.09	2.495	.4401	585.3	2343-22

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AMES 3.5-211 1H\*8

ARC3.5-211114810TS/NIPPLE/P/TRIP

SRB

SRB

PARAMETRIC DATA

ALPHA = 5.000 BETA = -5.000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
76	5.000	-5.000	5.300	4.961	405.7	1308.	319.5	.5349	201.2	.2230-03	3685.	.1750-01
77	5.000	-5.000	5.300	5.049	405.6	1293.	315.8	.5352	198.9	.2250-03	3664.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H2/HT	TH DEG. R	STN NO R=0.9
77	.00000	.95300	1084.0	.1229	.1516	.1716	53.78	6.611	.4707	619.6	.1832-02
77	.76.000	.11500	1094.0	.2052	.2505	.2615	56.30	11.55	.4466	587.8	.3032-02
77	.76.000	.12800	1095.0	.1234	.1505	.1692	56.38	6.956	.4458	586.8	.1822-02
77	.76.000	.14600	1096.0	.9556-01	.1166	.1310	56.44	5.394	.4453	586.1	.1411-02
77	.76.000	.20000	1097.0	.6024-01	.7349-01	.8257-01	56.45	5.401	.4452	586.0	.8896-03
77	.76.000	.40000	1098.0	.5471-01	.6682-01	.7514-01	56.11	3.070	.4484	590.2	.8087-03
77	.76.000	.60000	1099.0	.6756-01	.8272-01	.9317-01	55.49	3.749	.4544	598.0	.1001-02
77	.76.000	.80000	1100.0	.1114	.1372	.1551	54.14	6.034	.4672	615.0	.1659-02
77	.76.000	.87500	1101.0	.7615-01	.9391-01	.1063	53.75	4.093	.4710	619.9	.1135-02
77	.90.000	.50000-01	1102.0	.2462	.3006	.3380	56.23	13.84	.4473	588.8	.3639-02
77	.90.000	.10000-00	1103.0	.2402	.2929	.3290	56.58	13.59	.4440	584.4	.3546-02
77	.90.000	.14600	1105.0	.9545-01	.1164	.1307	56.62	5.404	.4436	583.9	.1409-02
77	.90.000	.96700	1111.0	.9715-01	.1213	.1385	50.95	4.950	.4979	655.3	.1464-02
77	.90.000	.98000	1112.0	.9742-01	.1218	.1391	50.76	4.944	.4997	657.7	.1470-02
77	.90.000	.99400	1113.0	.9845-01	.1227	.1400	51.32	5.052	.4943	650.6	.1482-02
77	.104.00	.11500	1114.0	.2090	.2550	.2864	56.50	11.81	.4447	585.3	.3086-02
77	.104.00	.12800	1115.0	.1229	.1499	.1683	56.60	6.956	.4438	584.2	.1814-02
77	.104.00	.14600	1116.0	.8801-01	.1073	.1205	56.58	4.980	.4439	584.3	.1299-02
77	.104.00	.20000	1117.0	.8297-01	.1012	.1136	55.62	4.698	.4435	583.9	.1225-02
77	.104.00	.40000	1118.0	.4747-01	.5793-01	.6509-01	56.38	2.676	.4459	586.9	.7012-03
77	.104.00	.60300	1119.0	.2730-01	.3341-01	.3761-01	55.66	1.520	.4528	595.9	.4042-03
77	.104.00	.80000	1120.0	.7536-01	.9274-01	.1048	54.23	4.087	.4664	613.9	.1121-02
77	.104.00	.87500	1121.0	.6762-01	.8332-01	.9427-01	53.92	3.646	.4694	617.8	.1007-02
77	.11500	.11500	1122.0	.1214	.1481	.1664	56.47	6.857	.4450	585.7	.1793-02
77	.135.00	.14600	1123.0	.5305-01	.6469-01	.7267-01	56.53	2.999	.4444	584.9	.7831-03
77	.135.00	.17700	1124.0	.5112-01	.6235-01	.7004-01	56.51	2.889	.4446	585.2	.7548-03

(RNBC10)

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP

SRB

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FTSEC	OOT BTU/ FTSEC	W/HIT	TH DEG. R	STN NO R=0.9
77	135.00	20000	1125.0	.5051-01	.6199-01	.6994-01	54.88	2.772	.4602	605.7	.7498-03
77	135.00	30000	1126.0	.6178-01	.7543-01	.8480-01	56.22	3.474	.4474	588.8	.9130-03
77	135.00	50000	1127.0	.4701-01	.5743-01	.6459-01	56.06	2.636	.4489	590.8	.6951-03
77	135.00	60000	1128.0	.3374-01	.4128-01	.4648-01	55.66	1.878	.4527	595.9	.4995-03
77	135.00	70000	1129.0	.4424-01	.5420-01	.6107-01	55.34	2.448	.4558	600.0	.6557-03
77	135.00	80000	1130.0	.8605-01	.1058	.1196	54.39	4.680	.4649	611.9	.1280-02
77	135.00	87500	1131.0	.9441-01	.1162	.1313	54.25	5.121	.4653	613.7	.1405-02
77	135.00	92500	1132.0	.8824-01	.1090	.1236	53.27	4.701	.4756	626.0	.1318-02
77	135.00	95300	1133.0	.1156	.1435	.1632	52.25	6.042	.4854	638.9	.1734-02
77	135.00	96700	1134.0	.1422	.1768	.2012	51.92	7.384	.4885	643.0	.2135-02
77	135.00	98000	1135.0	.1383	.1719	.1957	51.98	7.192	.4879	642.2	.2076-02
77	135.00	98400	1136.0	.1387	.1720	.1954	52.44	7.272	.4836	636.5	.2077-02
76	175.00	95300	1016.0	.1397	.1716	.1937	55.36	7.734	.4622	615.5	.2090-02
76	175.00	96700	1017.0	.1716	.2112	.2388	54.82	9.407	.4672	622.2	.2572-02
76	175.00	98000	1018.0	.1421	.1836	.2077	54.79	8.170	.4675	622.6	.2236-02
76	175.00	99400	1019.0	.1362	.1675	.1892	55.14	7.513	.4642	618.2	.2040-02
76	180.00	11500	1000.0	.1031	.1253	.1403	58.27	6.008	.4347	578.9	.1528-02
76	180.00	20000	1001.0	.4638-01	.5634-01	.6311-01	58.33	2.706	.4341	578.1	.6872-03
76	180.00	22500	1002.0	.3718-01	.4514-01	.5056-01	58.41	2.171	.4334	577.2	.5507-03
76	180.00	25000	1003.0	.3351-01	.4068-01	.4568-01	58.45	1.958	.4330	576.6	.4963-03
76	180.00	30000	1004.0	.5287-01	.6424-01	.7198-01	58.22	3.078	.4352	579.6	.7836-03
76	180.00	40000	1005.0	.4497-01	.5459-01	.6113-01	58.48	2.630	.4327	576.3	.6659-03
76	180.00	50000	1006.0	.5742-01	.6976-01	.7817-01	58.23	3.343	.4350	579.3	.8510-03
76	180.00	55000	1007.0	.6791-01	.8250-01	.9243-01	58.28	3.958	.4346	578.8	.1006-02
76	180.00	60000	1008.0	.7424-01	.9025-01	.1012	58.09	4.313	.4363	581.1	.1101-02
76	180.00	65000	1009.0	.6690-01	.8134-01	.9118-01	58.06	3.884	.4367	581.5	.9921-03
76	180.00	70000	1010.0	.6072-01	.7384-01	.8278-01	58.00	3.522	.4372	582.2	.9005-03
76	180.00	80000	1012.0	.1268	.1546	.1736	57.27	7.259	.4441	591.4	.1884-02
76	180.00	92500	1014.0	.9785-01	.1197	.1347	56.49	5.528	.4514	601.2	.1458-02
76	225.00	11500	1020.0	.7045-01	.8548-01	.9569-01	58.63	4.131	.4313	574.4	.1043-02
76	225.00	17100	1022.0	.6533-01	.7924-01	.8869-01	58.73	3.837	.4304	573.1	.9669-03
76	225.00	20000	1023.0	.2927-01	.3550-01	.3974-01	58.69	1.718	.4307	573.6	.4332-03
76	225.00	30000	1024.0	.8442-02	.1025-01	.1147-01	58.55	.4943	.4321	575.4	.1250-03
76	225.00	40000	1025.0	.6340-01	.7692-01	.8609-01	58.69	3.721	.4308	573.7	.9384-03
76	225.00	50000	1026.0	.8867-01	.1077	.1206	58.46	5.184	.4329	576.5	.1313-02
76	225.00	55000	1027.0	.1727-01	.2086-01	.2328-01	59.96	1.036	.4188	557.7	.2547-03
76	225.00	60000	1028.0	.6454-01	.7828-01	.8761-01	58.72	3.789	.4305	573.3	.9551-03
76	225.00	65000	1029.0	.7365-01	.8944-01	.1002	58.38	4.299	.4337	577.5	.1091-02
76	225.00	70000	1030.0	.7617-01	.9253-01	.1037	58.30	4.441	.4344	578.5	.1129-02
76	225.00	80000	1031.0	.1118	.1367	.1539	56.39	6.303	.4524	602.5	.1666-02
76	225.00	87500	1032.0	.7608-01	.9248-01	.1037	58.12	4.421	.4361	580.8	.1128-02
76	225.00	92500	1033.0	.5006-01	.6092-01	.6833-01	57.84	2.896	.4388	584.3	.7429-03
76	230.00	95300	1034.0	.5939-01	.7236-01	.8122-01	57.52	3.416	.4418	588.3	.9823-03



DATE 03 MAR 76

AVES 3.5-211 1M+8

ARC3.5-211(1M+8)OTS/NIPPLE/P/TRIP

SRB

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	OOOT BTU/ FT2SEC	HM/HT	TN DEO. R	STN NO R=0.8
76	230.00	.96700	1035.0	.6285-01	.7664-01	.8609-01	57.24	3.597	.4444	591.8	.9344-03
76	230.00	.98000	1036.0	.6969-01	.8504-01	.9556-01	57.08	3.978	.4459	593.8	.1037-02
76	230.00	.99400	1037.0	.5667-01	.6918-01	.7776-01	56.97	3.229	.4469	595.2	.8433-03
76	270.00	.80000-02	1040.0	.6511	.7954	.8946	56.76	36.95	.4489	597.9	.9695-02
76	270.00	.12000	1043.0	.2445	.2967	.3322	58.57	14.32	.4319	575.2	.3620-02
76	270.00	.17300	1046.0	.1296	.1572	.1758	58.81	7.621	.4296	572.2	.1917-02
76	270.00	.18600	1048.0	.1133	.1375	.1539	58.63	6.643	.4313	574.3	.1677-02
76	270.00	.19300	1049.0	.8557-01	.1039	.1163	58.52	5.008	.4325	575.8	.1267-02
76	270.00	.20000	1050.0	.7119-01	.8642-01	.9676-01	58.51	4.165	.4325	575.9	.1054-02
76	270.00	.25000	1051.0	.5282-01	.6414-01	.7184-01	58.40	3.085	.4334	577.2	.7825-03
76	270.00	.30000	1052.0	.4499-01	.5470-01	.6132-01	58.05	2.611	.4368	581.7	.6671-03
76	270.00	.40000	1053.0	.3669-01	.4459-01	.4996-01	58.19	2.135	.4354	579.9	.5438-03
76	270.00	.50000	1054.0	.7241-01	.8808-01	.9877-01	57.91	4.193	.4381	583.4	.1074-02
76	270.00	.60000	1055.0	.8095-01	.9853-01	.1105	57.77	4.676	.4394	585.2	.1202-02
76	270.00	.70000	1056.0	.7508-01	.9137-01	.1025	57.80	4.340	.4391	584.7	.1114-02
76	270.00	.75000	1057.0	.2283	.2777	.3115	57.88	13.21	.4383	583.7	.3387-02
76	270.00	.80000	1058.0	.4004-01	.4869-01	.5459-01	58.03	2.324	.4369	581.9	.5939-03
76	270.00	.87500	1059.0	.2816-01	.3423-01	.3837-01	58.12	1.637	.4361	580.8	.4175-03
76	270.00	.92500	1060.0	.3518-01	.4280-01	.4799-01	57.88	2.036	.4384	583.8	.5219-03
76	270.00	.95300	1061.0	.4300-01	.5237-01	.5877-01	57.60	2.477	.4410	587.3	.6386-03
76	270.00	.96700	1062.0	.3557-01	.4338-01	.4873-01	57.20	2.034	.4447	592.3	.5288-03
76	270.00	.98000	1063.0	.3353-01	.4093-01	.4600-01	57.02	1.912	.4464	594.5	.4989-03
76	270.00	.99400	1064.0	.3476-01	.4243-01	.4770-01	56.95	1.980	.4471	595.4	.5172-03
76	315.00	.11500	1065.0	.1304	.1586	.1778	57.94	7.553	.4378	583.1	.1934-02
76	315.00	.14300	1066.0	.8460-01	.1029	.1153	58.03	4.910	.4369	581.9	.1255-02
76	315.00	.17100	1067.0	.1464	.1780	.1996	58.06	8.501	.4367	581.6	.2171-02
76	315.00	.20000	1068.0	.1447	.1760	.1974	57.93	8.383	.4379	583.2	.2147-02
76	315.00	.30000	1069.0	.7562-01	.9213-01	.1034	57.51	3.847	.4418	588.4	.1123-02
76	315.00	.50000	1070.0	.6713-01	.8184-01	.9191-01	57.31	3.140	.4437	590.9	.9978-03
76	315.00	.60000	1071.0	.7244-01	.8837-01	.9928-01	57.15	4.140	.4452	592.9	.1077-02
76	315.00	.70000	1072.0	.6927-01	.8522-01	.9573-01	57.19	3.996	.4448	594.4	.1039-02
76	315.00	.80000	1073.0	.1011	.1233	.1386	57.01	5.761	.4465	594.7	.1504-02
76	315.00	.95300	1074.0	.3376-01	.4124-01	.4638-01	56.78	1.917	.4487	597.5	.5027-03
77	315.00	.96700	1075.0	.6536-01	.8034-01	.9074-01	54.50	3.562	.4638	610.5	.9715-03
77	315.00	.98000	1076.0	.6948-01	.8546-01	.9657-01	54.34	3.776	.4653	612.5	.1033-02
77	315.00	.99400	1077.0	.7604-01	.9451-01	.1068	54.36	4.177	.4652	612.3	.1143-02

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ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0+S) RCS NOSE

(RNB0011)

RCS (NOSE SRB)

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 1.508

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
7	.0000	.0000	5.200	1.515	121.5	1331.	325.6	.1791	211.8	.7099-04	3709.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HREF	TH DEG. R	STN NO R=0.9
7	155.00	.43000-01	1212.0	.1322	.1589	.1768	35.57	4.703	.4054	550.1	.3447-02
7	155.00	.50000-01	1213.0	.1211	.1455	.1619	35.60	4.311	.4049	549.4	.3156-02
7	155.00	.57000-01	1214.0	.1074	.1291	.1435	35.62	3.825	.4046	548.9	.2799-02
7	155.00	.63000-01	1215.0	.1142	.1372	.1526	35.66	4.072	.4039	548.0	.2976-02
7	155.00	.69000-01	1216.0	.1372	.1650	.1835	35.62	4.888	.4047	549.1	.3578-02
7	155.00	.75000-00	1217.0	.1241	.1492	.1660	35.54	4.411	.4058	550.7	.3236-02
7	185.00	.50000-01	1209.0	.1368	.1643	.1827	35.67	4.879	.4037	547.3	.3564-02
7	185.00	.50000-01	1210.0	.1606	.1930	.2146	35.65	5.727	.4040	548.2	.4186-02
7	185.00	.50000-00	1211.0	.1543	.1855	.2064	35.58	5.490	.4053	550.0	.4024-02
7	215.00	.50000-01	1206.0	.1557	.1871	.2080	35.68	5.556	.4036	547.6	.4058-02
7	215.00	.50000-01	1207.0	.1350	.1622	.1804	35.70	4.820	.4033	547.3	.3519-02
7	215.00	.10000-00	1208.0	.1224	.1471	.1636	35.66	4.365	.4040	548.2	.3191-02
7	245.00	.43000-01	1200.0	.1568	.1885	.2097	35.58	5.579	.4052	549.8	.4088-02
7	245.00	.50000-01	1201.0	.1026	.1233	.1372	35.64	3.658	.4043	548.6	.2675-02
7	245.00	.57000-01	1202.0	.1086	.1305	.1451	35.66	3.872	.4039	548.1	.2830-02
7	245.00	.63000-01	1203.0	.8893-01	.1068	.1188	35.71	3.176	.4031	547.0	.2317-02
7	245.00	.90000-01	1204.0	.4906-01	.5893-01	.6552-01	35.73	1.753	.4028	546.5	.1278-02
7	245.00	.10000-00	1205.0	.3405-01	.4090-01	.4548-01	35.72	1.216	.4030	546.9	.8873-03

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ARC3.5-211:IM8:OTS/NIPPLE/P/TRIP(O-S) RCS NOSE

(RNE002)

RCS (NOSE SRB)

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
15	.0000	.0000	5.300	4.857	392.9	1299.	317.3	.5183	199.8	.2177-03	3672.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/H7	TH DEG. R	STN NO R=0.9
15	155.00	.43000-01	1212.0	.2418	.2956	.3326	55.29	13.37	.4505	595.7	.3645-02
15	155.00	.50000-01	1213.0	.2411	.2945	.3311	55.54	13.39	.4481	592.6	.3631-02
15	155.00	.57000-01	1214.0	.2281	.2783	.3127	55.80	12.73	.4455	589.2	.3432-02
15	155.00	.63000-01	1215.0	.2205	.2687	.3016	56.16	12.39	.4421	584.6	.3315-02
15	155.00	.90000-01	1216.0	.2112	.2574	.2890	56.05	11.84	.4431	586.0	.3175-02
15	155.00	.10000-00	1217.0	.2174	.2654	.2984	55.61	12.09	.4474	591.7	.3273-02
15	185.00	.50000-01	1209.0	.1861	.2271	.2552	55.73	10.37	.4463	590.2	.2800-02
15	185.00	.90000-01	1210.0	.2109	.2570	.2895	56.13	11.84	.4424	585.1	.3170-02
15	185.00	.10000-00	1211.0	.1985	.2424	.2725	55.61	11.04	.4474	591.7	.2989-02
15	215.00	.50000-01	1206.0	.1960	.2391	.2687	55.79	10.93	.4457	589.4	.2949-02
15	215.00	.90000-01	1207.0	.1968	.2397	.2690	55.85	11.06	.4416	583.9	.2957-02
15	215.00	.10000-00	1208.0	.1826	.2228	.2503	55.24	10.20	.4451	588.6	.2748-02
15	245.00	.43000-01	1200.0	.3218	.3935	.4428	55.63	17.78	.4509	596.3	.4651-02
15	245.00	.50000-01	1201.0	.2272	.2774	.3119	55.92	12.64	.4472	591.3	.3421-02
15	245.00	.57000-01	1202.0	.2484	.3029	.3402	55.31	13.89	.4444	587.7	.3736-02
15	245.00	.63000-01	1203.0	.2736	.3055	.3055	56.32	12.59	.4405	582.7	.3358-02
15	245.00	.90000-01	1204.0	.1528	.1860	.2088	56.33	8.606	.4405	582.5	.2295-02
15	245.00	.10000-00	1205.0	.1335	.1627	.1827	56.04	7.479	.4433	586.2	.2007-02

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RCS (NOSE SRB)

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) RCS NOSE

(RNB0031)

PARAMETRIC DATA

ALPHA = -5.000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
28	-5.000	.0000	5.300	5.166	406.1	1276.	311.3	.5364	196.1	.2296-03	3637.	.1730-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HM/HT	TN DEG. R	STN NO R=0.9
28	155.00	.43000-01	1212.0	.3138	.3847	.4338	54.34	17.05	.4578	584.0	.4610-02
28	155.00	.50000-01	1213.0	.3189	.3909	.4405	54.45	17.36	.4568	582.7	.4684-02
28	155.00	.57000-01	1214.0	.3046	.3730	.4201	54.72	16.67	.4542	589.3	.4470-02
28	155.00	.63000-01	1215.0	.3001	.3669	.4129	55.07	16.53	.4507	584.8	.4399-02
28	155.00	.90000-01	1216.0	.2997	.3667	.4127	54.93	16.47	.4521	586.6	.4395-02
28	155.00	.10000+00	1217.0	.3028	.3711	.4183	54.48	16.50	.4565	592.3	.4447-02
28	185.00	.50000-01	1209.0	.2295	.2810	.3166	54.64	12.54	.4549	590.2	.3368-02
28	185.00	.90000-01	1210.0	.2792	.3414	.3842	54.99	15.35	.4516	585.9	.1292-02
28	185.00	.10000+00	1211.0	.2599	.3186	.3591	54.45	14.15	.4568	592.6	.3918-02
28	215.00	.50000-01	1206.0	.2461	.3014	.3395	54.69	13.46	.4544	589.6	.3612-02
28	215.00	.90000-01	1207.0	.2574	.3146	.3541	55.07	14.17	.4508	584.9	.3772-02
28	215.00	.10000+00	1208.0	.2468	.3023	.3405	54.66	13.49	.4547	590.0	.3622-02
28	245.00	.43000-01	1200.0	.3884	.4765	.5374	54.20	21.05	.4592	595.9	.5709-02
28	245.00	.50000-01	1201.0	.2759	.3380	.3808	54.57	15.05	.4557	591.2	.4050-02
28	245.00	.57000-01	1202.0	.3055	.3738	.4209	54.86	16.76	.4529	587.6	.4481-02
28	245.00	.90000-01	1204.0	.1924	.2351	.2644	55.21	10.62	.4494	583.1	.2818-02
28	245.00	.10000+00	1205.0	.1736	.2123	.2390	54.91	9.529	.4524	586.9	.2545-02

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(10-S) RCS NOSE

(RMSQDN)

RCS (NOSE SRB)

## PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RV/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	MT BTU/ LBM	PINF PSIA	TINF DEG. R	RNO SLUG/ FT3	VINF FT/SEC	SCALE
37	5.000	.0000	5.360	5.047	404.6	1292.	315.4	.5340	198.6	.2256-03	3661.	.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
37	155.00	.43000-01	1212.0	.1943	.2375	.2672	55.75	10.83	.4506	592.2	.2875-02
37	155.00	.50000-01	1213.0	.1863	.2276	.2560	55.94	10.42	.4487	589.8	.2756-02
37	155.00	.57000-01	1214.0	.1769	.2159	.2427	56.14	9.930	.4467	587.2	.2614-02
37	155.00	.63000-01	1215.0	.1723	.2101	.2360	56.44	9.724	.4440	583.6	.2544-02
37	155.00	.90000-01	1216.0	.1544	.1883	.2115	56.34	8.697	.4449	584.7	.2280-02
37	155.00	.10000-00	1217.0	.1572	.1920	.2159	56.01	8.804	.4480	588.9	.2324-02
37	185.00	.50000-01	1209.0	.1385	.1690	.1899	56.18	7.778	.4464	586.8	.2046-02
37	185.00	.90000-01	1210.0	.1445	.1762	.1979	56.42	8.150	.4442	583.8	.2133-02
37	185.00	.10000-00	1211.0	.1377	.1682	.1891	56.01	7.713	.4480	588.9	.2036-02
37	215.00	.50000-01	1205.0	.1587	.1937	.2177	56.22	8.923	.4460	586.3	.2345-02
37	215.00	.90000-01	1207.0	.1359	.1657	.1960	56.51	7.681	.4433	582.6	.2006-02
37	215.00	.10000-00	1208.0	.1270	.1550	.1742	56.23	7.143	.4460	586.2	.1877-02
37	245.00	.43000-01	1200.0	.2829	.3460	.3893	55.68	15.75	.4512	593.0	.4168-02
37	245.00	.50000-01	1201.0	.2000	.2442	.2746	55.99	11.20	.4482	589.1	.2957-02
37	245.00	.57000-01	1202.0	.2168	.2645	.2972	56.23	12.19	.4459	586.1	.3203-02
37	245.00	.63000-01	1203.0	.1888	.2301	.2583	56.58	10.68	.4426	581.8	.2786-02
37	245.00	.90000-01	1204.0	.1289	.1571	.1763	56.59	7.293	.4425	581.7	.1902-02
37	245.00	.10000-00	1205.0	.1122	.1368	.1537	56.38	6.325	.4445	584.3	.1657-02

ARC3.5-211(1H8)OTS/NIPPLE/P/TRIP(10-S) RCS NOSE

IRN80051

RCS (NOSE SRB)

## PARAMETRIC DATA

ALPHA = 10.00 BETA = .0008 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	IT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHD SLUG/ FT <sup>3</sup>	VINE FT/SEC	SCALE
44	10.00	.0000	5.300	4.841	402.7	1322.	323.2	.5306	203.5	.2188-03	3706.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	H4/H1	T4 DEG. R	STN NO R=0.9
44	155.00	.43000-01	1212.0	.1561	.1927	.2163	57.95	9.165	.4421	595.4	.2374-02
44	155.00	.50000-01	1213.0	.1467	.1786	.2004	58.17	8.534	.4400	592.6	.2201-02
44	155.00	.57000-01	1214.0	.1377	.1676	.1879	58.37	8.040	.4382	590.2	.2055-02
44	155.00	.63000-01	1215.0	.1307	.1588	.1779	58.66	7.664	.4355	586.5	.1957-02
44	155.00	.90000-01	1216.0	.1040	.1264	.1417	58.58	6.093	.4362	597.6	.1550-02
44	155.00	.10000-00	1217.0	.1004	.1223	.1371	58.23	5.849	.4395	591.9	.1507-02
44	155.00	.50000-01	1209.0	.1070	.1301	.1459	58.39	6.247	.4380	589.9	.1604-02
44	155.00	.10000-00	1210.0	.9692-01	.1178	.1320	58.67	5.687	.4354	586.4	.1452-02
44	155.00	.50000-01	1211.0	.9355-01	.1138	.1277	58.33	5.457	.4376	590.6	.1403-02
44	215.00	.10000-00	1206.0	.1249	.1519	.1703	58.43	7.297	.4376	589.4	.1672-02
44	215.00	.50000-01	1207.0	.8034-01	.9757-01	.1093	58.86	4.729	.4336	584.0	.1203-02
44	215.00	.10000-00	1208.0	.7179-01	.8726-01	.3019	57.92	4.208	.4359	587.1	.1076-02
44	215.00	.43000-01	1200.0	.2207	.2689	.3019	57.92	12.78	.4424	595.8	.3313-02
44	215.00	.50000-01	1201.0	.1614	.1965	.2204	58.23	9.400	.4395	591.9	.2422-02
44	215.00	.57000-01	1202.0	.1694	.2060	.2310	58.48	9.907	.4372	588.8	.2539-02
44	215.00	.63000-01	1203.0	.1278	.1553	.1739	58.81	7.517	.4341	584.7	.1914-02
44	215.00	.90000-01	1204.0	.9259-01	.1124	.1259	58.88	5.452	.4334	583.7	.1366-02
44	215.00	.10000-00	1205.0	.8741-01	.1062	.1190	58.69	5.130	.4352	586.2	.1309-02

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(1748007)

ARC3.5-211(144810TS/NIPPLE/P/TRIP/INTS RCS NOSE

RCS (NOSE SRB)

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
53	.0000	.0000	5.300	4.868	405.9	1324.	323.7	.5347	203.9	.2201-03	3709.	.1758-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H3/H1	T4 DEG. R	STN NO R=0.9
53	155.00	.43000-01	1212.0	.2460	.2977	.3327	60.18	14.80	.4245	572.7	.3661-02
53	155.00	.50000-01	1213.0	.2425	.2933	.3276	60.40	14.65	.4225	570.0	.3608-02
53	155.00	.57000-01	1214.0	.2311	.2793	.3118	60.63	14.01	.4204	567.1	.3436-02
53	155.00	.63000-01	1215.0	.2257	.2724	.3039	60.97	13.76	.4172	562.9	.3351-02
53	155.00	.90000-01	1216.0	.2180	.2632	.2937	60.84	13.26	.4184	564.4	.3239-02
53	155.00	.10000+00	1217.0	.2235	.2703	.3019	60.43	13.51	.4222	569.6	.3125-02
53	185.00	.50000-01	1209.0	.1724	.2084	.2326	60.63	10.45	.4204	567.1	.2553-02
53	185.00	.90000-01	1210.0	.2176	.2628	.2932	60.89	13.25	.4179	563.8	.3233-02
53	215.00	.10000+00	1211.0	.1997	.2416	.2698	60.41	12.07	.4224	569.8	.2971-02
53	215.00	.50000-01	1206.0	.1872	.2262	.2525	60.68	11.36	.4198	566.4	.2783-02
53	215.00	.90000-01	1207.0	.2046	.2470	.2755	61.00	12.48	.4169	566.5	.3039-02
53	245.00	.10000+00	1208.0	.1895	.2290	.2556	60.67	11.50	.4200	566.6	.2817-02
53	245.00	.50000-01	1200.0	.3327	.4026	.4499	60.21	20.03	.4242	572.3	.4522-02
53	245.00	.90000-01	1201.0	.2898	.2778	.3102	60.57	13.92	.4209	567.8	.3417-02
53	245.00	.57000-01	1202.0	.2950	.3080	.3437	60.81	15.51	.4187	564.8	.3750-02
53	245.00	.63000-01	1203.0	.1990	.2401	.2677	61.16	12.17	.4155	560.5	.2954-02
53	245.00	.90000-01	1204.0	.1980	.1906	.2125	61.19	9.667	.4151	560.0	.2345-02
53	245.00	.10000+00	1205.0	.1458	.1761	.1964	60.97	8.892	.4172	562.8	.2165-02

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RCS (NOSE SRB)

ARC3.5-211(11448)OTS/NIPPLE/P/TRIP

RCS NOSE

(PAREDO8)

## PARAMETRIC DATA

ALPHA = .0000 BETA = -5.000 RVN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RVN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RNO SLUG/ FT3	VINF FT/SEC	SCALE
54	.0000	-5.000	5.300	5.027	408.9	1304.	318.4	.5392	200.5	.2257-03	3679.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
54	155.00	.43000-01	1212.0	.2855	.3469	.3887	58.25	16.63	.4351	577.4	.4206-02
54	155.00	.50000-01	1213.0	.2875	.3491	.3910	58.46	16.81	.4331	574.8	.4233-02
54	155.00	.57000-01	1214.0	.2795	.3391	.3796	58.67	16.40	.4311	572.2	.4112-02
54	155.00	.63000-01	1215.0	.2736	.3316	.3709	58.98	16.14	.4282	568.3	.4022-02
54	155.00	.90000-01	1216.0	.2731	.3311	.3705	58.86	16.07	.4293	569.7	.4015-02
54	155.00	.10000-00	1217.0	.2767	.3350	.3762	58.50	16.19	.4327	574.3	.4074-02
54	155.00	.50000-01	1209.0	.1988	.2412	.2700	58.68	11.67	.4310	572.0	.2925-02
54	155.00	.90000-01	1210.0	.2485	.3012	.3369	58.94	14.65	.4286	568.8	.3653-02
54	155.00	.50000-00	1211.0	.2298	.2790	.3124	58.50	13.44	.4327	574.2	.3382-02
54	215.00	.50000-01	1206.0	.2104	.2552	.2856	58.74	12.35	.4305	571.3	.3094-02
54	215.00	.90000-01	1207.0	.2277	.2759	.3086	59.05	12.55	.4275	567.4	.3347-02
54	215.00	.50000-00	1208.0	.2136	.2591	.2900	58.75	12.55	.4304	571.2	.3143-02
54	245.00	.43000-01	1200.0	.3772	.4583	.5135	58.29	21.99	.4347	576.9	.5556-02
54	245.00	.50000-01	1201.0	.2591	.3144	.3520	58.62	15.19	.4316	572.8	.3813-02
54	245.00	.57000-01	1202.0	.2934	.3557	.3980	58.85	17.27	.4294	569.9	.4314-02
54	245.00	.63000-01	1203.0	.2748	.3223	.3645	59.16	13.30	.4265	566.0	.3303-02
54	245.00	.90000-01	1204.0	.1815	.2198	.2457	59.20	10.74	.4261	565.5	.2666-02
54	245.00	.10000-00	1205.0	.1647	.1956	.2232	58.99	9.715	.4280	568.1	.2421-02



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RCS (NOSE SRB)

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP

RCS NOSE

(RCS009)

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000 RV/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBH	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
68	-5.000	-5.000	5.306	4.734	404.1	1344.	328.7	.5318	207.0	.2156-03	3739.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	YC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HIT	TH DEG. R	STN NO R=0.9
68	155.00	.43000-01	1212.0	.3560	.4331	.4839	61.13	21.88	.4235	580.2	.5389-02
68	155.00	.50000-01	1213.0	.3785	.4575	.5108	61.44	23.26	.4206	576.2	.5684-02
68	155.00	.57000-01	1214.0	.3986	.4829	.5430	61.74	24.14	.4179	572.6	.5389-02
68	155.00	.63000-01	1215.0	.3515	.4239	.4726	62.13	21.84	.4144	567.7	.5278-02
68	155.00	.90000-01	1216.0	.3965	.4325	.4822	62.00	22.23	.4155	569.3	.5384-02
68	155.00	.10000-00	1217.0	.3620	.4374	.4882	61.51	22.26	.4200	575.4	.5444-02
68	185.00	.50000-01	1209.0	.2710	.3273	.3652	61.66	16.71	.4185	573.5	.4074-02
68	185.00	.90000-01	1210.0	.3307	.3988	.4446	62.13	20.55	.4144	567.7	.4655-02
68	185.00	.10000-00	1211.0	.3096	.3742	.4177	61.47	19.03	.4203	575.8	.4657-02
68	215.00	.50000-01	1206.0	.2953	.3566	.3979	61.72	18.23	.4181	572.8	.4739-02
68	215.00	.90000-01	1207.0	.3077	.3711	.4137	62.13	19.12	.4144	567.7	.4620-02
68	215.00	.10000-00	1208.0	.2863	.3457	.3857	61.71	17.67	.4182	572.9	.4703-02
68	245.00	.43000-01	1200.0	.4501	.5444	.6081	61.24	27.57	.4225	578.8	.6775-02
68	245.00	.50000-01	1201.0	.2957	.3571	.3986	61.63	18.22	.4189	573.9	.4445-02
68	245.00	.57000-01	1202.0	.3436	.4146	.4623	61.95	21.29	.4160	569.9	.5161-02
68	245.00	.63000-01	1203.0	.2729	.3288	.3664	62.34	17.01	.4124	565.0	.4084-02
68	245.00	.90000-01	1204.0	.2265	.2729	.3041	62.34	14.12	.4124	565.0	.3398-02
68	245.00	.10000-00	1205.0	.2036	.2456	.2738	62.01	12.62	.4154	569.1	.3057-02

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RCS NOSE

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(PAGED)

ARCS 5-21111H481015/NIPPLE/P/TRIP

RCS (NOSE SRB)

PARAMETRIC DATA

ALPHA = 5.000 BETA = -5.000 RV/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LB	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
77	5.000	-5.000	5.300	5.049	405.6	1293.	315.8	.5352	198.9	.2258-03	366.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HREF R=0.9	TH DEG. R	STN NO R=0.9
77	155.00	.43000-01	1212.0	.2340	.2855	.3208	56.38	13.19	.4459	586.8	3-55-02
77	155.00	.50000-01	1213.0	.2313	.2819	.3166	56.62	13.09	.4436	583.8	3-13-02
77	155.00	.57000-01	1214.0	.2272	.2768	.3107	56.82	12.91	.4417	581.4	3-51-02
77	155.00	.63000-01	1215.0	.2194	.2670	.2995	57.09	12.53	.4391	577.9	3-34-02
77	155.00	.90000-01	1216.0	.2041	.2484	.2787	57.03	11.64	.4397	578.8	3-08-02
77	155.00	.10000+00	1217.0	.2067	.2520	.2829	56.71	11.72	.4428	582.8	3-50-02
77	185.00	.50000-01	1209.0	.1620	.1973	.2215	56.83	9.205	.4416	581.2	3-59-02
77	185.00	.90000-01	1210.0	.1746	.2124	.2382	57.15	9.977	.4385	577.2	3-72-02
77	185.00	.10000+00	1211.0	.1686	.2055	.2307	56.72	9.565	.4426	582.6	3-58-02
77	215.00	.50000-01	1206.0	.1827	.2226	.2498	56.86	10.39	.4413	580.9	3-54-02
77	215.00	.90000-01	1207.0	.1604	.1951	.2188	57.18	9.169	.4393	576.9	3-52-02
77	215.00	.10000+00	1209.0	.1462	.1780	.1997	56.92	8.321	.4407	583.0	3-55-02
77	245.00	.50000-01	1200.0	.3227	.3937	.4424	56.40	18.20	.4456	585.6	3-55-02
77	245.00	.90000-01	1201.0	.2203	.2685	.3015	56.70	12.49	.4428	582.6	3-51-02
77	245.00	.10000+00	1202.0	.2532	.3083	.3460	56.93	14.41	.4405	580.0	3-73-02
77	245.00	.50000-01	1203.0	.1911	.2325	.2606	57.23	10.94	.4378	576.2	3-51-02
77	245.00	.90000-01	1204.0	.1563	.1901	.2132	57.26	8.950	.4375	575.9	3-02-02
77	245.00	.10000+00	1205.0	.1379	.1679	.1883	57.06	7.871	.4394	578.3	3-53-02

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ARC3.5-211(1H48)CTS/NIPPLE/P/TRIP(0-S) RCS SKIRT

(P/NBEO1)

RCS (SKIRT SRB)

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 1.500

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	WT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
7	.0003	.0000	5.200	1.515	121.5	1331.	325.6	.1791	211.8	.7099-04	3709.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HMT	TH DEG. R	SIN NO R=0.9
7	184.38	.95500	1220.0	.1073	.1301	.1452	34.86	3.759	.4168	555.6	-2821-22
7	184.38	.97500	1221.0	.1204	.1454	.1622	34.75	4.182	.4187	559.2	-3150-02
7	184.38	.98500	1222.0	.8399-01	.1014	.1132	34.77	2.920	.4183	557.6	-2198-02
7	184.38	.99500	1223.0	.6656-01	.8033-01	.8963-01	34.83	2.318	.4173	555.3	-1741-22
7	200.00	.95500	1224.0	.9553-01	.1151	.1283	35.11	3.354	.4129	560.2	-2495-02
7	200.00	.97500	1225.0	.9373-01	.1202	.1344	35.09	3.499	.4132	560.7	-2615-02
7	200.00	.99500	1226.0	.7405-01	.8924 01	.9944-01	35.14	2.602	.4124	559.6	-1932-02
7	200.00	.95500	1227.0	.6455-01	.7781-01	.8571-01	35.17	2.256	.4131	559.6	-1587-02
7	220.00	.95500	1228.0	.4610-01	.5549-01	.6178-01	35.17	1.630	.4090	555.0	-1203-02
7	220.00	.97500	1229.0	.5049-01	.6078-01	.5769-01	35.17	1.783	.4096	555.8	-1318-02
7	220.00	.95500	1230.0	.3787-01	.4560-01	.5078-01	35.17	1.337	.4099	555.2	-9697-03
7	220.00	.99500	1231.0	.4103-01	.4941-01	.5504-01	35.17	1.446	.4107	557.3	-1171-02

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIPI(0+5) RCS SKIRT

(RASE02)

RCS (SKIRT SRB)

## PARAMETRIC DATA

ALPHA = .0080 BETA = .0000 RN/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
15	.0000	.0000	5.300	4.857	352.9	1299.	317.3	.5183	199.8	.2177-03	3672.	.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
15	184.38	.95500	1220.0	.1181	.1472	.1680	50.67	5.983	.4952	654.9	.1811-02
15	184.38	.97500	1221.0	.1255	.1570	.1794	50.10	6.289	.5008	662.2	.1930-02
15	184.38	.99500	1222.0	.9433-01	.1178	.1345	50.44	4.758	.4974	657.8	.1448-02
15	184.38	.99500	1223.0	.8032-01	.9991-01	.1138	51.22	4.114	.4898	647.7	.1229-02
15	200.00	.96500	1224.0	.1043	.1294	.1471	51.69	5.390	.4853	641.7	.1593-02
15	200.00	.97500	1225.0	.1039	.1291	.1470	51.46	5.348	.4876	644.7	.1589-02
15	200.00	.99500	1227.0	.7032-01	.8713-01	.9895-01	52.08	3.663	.4815	636.7	.1072-02
15	220.00	.96500	1228.0	.5532-01	.6824-01	.7727-01	53.08	2.936	.4719	624.0	.8405-03
15	220.00	.97500	1229.0	.5735-01	.7084-01	.8029-01	52.76	3.026	.4750	628.1	.8723-03
15	220.00	.99500	1230.0	.4970-01	.6138-01	.6955-01	52.82	2.625	.4744	627.3	.7558-03
15	220.00	.99500	1231.0	.5080-01	.6270-01	.7102-01	52.93	2.689	.4733	625.9	.7721-03

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(O-S) RCS SKIRT

(RNR003)

RCS (SKIRT SRB)

## PARAMETRIC DATA

ALPHA = -5.000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
28	-5.000	.0000	5.300	5.166	406.1	1276.	311.3	.5364	196.1	.2295-03	3637.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	ODOT BTU/ FT <sup>2</sup> SEC	H/HREF	TN DEG. R	STN NO R=0.9
28	184.38	.96500	1220.0	.1525	.1911	.2188	49.49	7.547	.5050	635.3	.2284-02
28	184.38	.97500	1221.0	.1439	.1809	.2076	48.88	7.034	.5110	633.0	.2162-02
28	184.38	.98500	1222.0	.1010	.1267	.1452	49.27	4.978	.5071	658.0	.1515-02
28	184.38	.99500	1223.0	.8483-01	.1060	.1211	50.09	4.249	.4992	647.7	.1267-02
28	200.00	.96500	1224.0	.1483	.1849	.2110	50.46	7.482	.4955	642.9	.2211-02
28	200.00	.97500	1225.0	.1268	.1584	.1809	50.17	6.363	.4983	646.6	.1894-02
28	200.00	.99500	1227.0	.8124-01	.1011	.1152	50.86	4.132	.4917	637.9	.1210-02
28	220.00	.96500	1228.0	.8318-01	.1031	.1171	51.84	4.312	.4821	625.5	.1234-02
28	220.00	.97500	1229.0	.8041-01	.9982-01	.1135	51.46	4.138	.4858	630.3	.1194-02
28	220.00	.98500	1230.0	.6049-01	.7507-01	.8536-01	51.53	3.117	.4852	629.5	.8982-03
28	220.00	.99500	1231.0	.5273-01	.6540-01	.7434-01	51.65	2.723	.4840	627.9	.7826-03

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OF POOR QUALITY

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) RCS SKIRT

(RABEON)

RCS (SKIRT SRB)

## PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RV/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
37	9.000	.0000	5.300	5.047	404.6	1292.	315.4	.5340	198.6	.2256-03	3661.	.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HREF	TW DEG. R	STN NO R=0.9
37	184.38	.98500	1220.0	.1452	.1799	.2043	52.51	7.623	.4816	633.0	.2174-02
37	184.38	.97500	1221.0	.1433	.1779	.2024	52.01	7.453	.4864	639.3	.2150-02
37	184.38	.98500	1222.0	.1043	.1294	.1471	52.21	5.446	.4845	636.8	.1564-02
37	184.38	.99500	1223.0	.8443-01	.1045	.1186	52.69	4.448	.4799	630.8	.1263-02
37	200.00	.98500	1224.0	.1252	.1545	.1750	53.33	6.675	.4737	622.6	.1868-02
37	200.00	.97500	1225.0	.1220	.1507	.1709	53.12	6.479	.4758	625.4	.1822-02
37	200.00	.99500	1226.0	.8906-01	.1099	.1245	53.44	4.760	.4726	621.3	.1329-02
37	220.00	.98500	1227.0	.6252-01	.7684-01	.8678-01	54.41	3.402	.4634	609.1	.9296-03
37	220.00	.97500	1228.0	.6207-01	.7638-01	.8634-01	54.10	3.358	.4663	613.0	.9239-03
37	220.00	.98500	1229.0	.5613-01	.6907-01	.7806-01	54.13	3.038	.4661	612.6	.8354-03
37	220.00	.99500	1230.0	.5315-01	.6541-01	.7393-01	54.10	2.875	.4664	613.0	.7911-03

PARAMETRIC DATA												
ALPHA = 10.00    BETA = .0000    RV/L = 5.000												
***TEST CONDITIONS***												
RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
44	10.00	.0000	5.300	4.841	402.7	1322	323.2	.5306	203.5	.2188-03	3706.	.1750-01

***TEST DATA***											
RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TH DEG. R	STN NO R=0.9
44	184.38	.96500	1220.0	.9830-01	.1209	.1365	55.58	5.463	.4643	625.3	.1487-02
44	184.38	.97500	1221.0	.1007	.1240	.1403	55.19	5.558	.4680	630.3	.1526-02
44	184.38	.98500	1222.0	.7685-01	.9458-01	.1069	55.35	4.254	.4664	628.2	.1164-02
44	184.38	.99500	1223.0	.6617-01	.8130-01	.9180-01	55.74	3.688	.4627	623.2	.1001-02
44	200.00	.96500	1224.0	.9442-01	.1158	.1305	56.26	5.312	.4579	616.7	.1425-02
44	200.00	.97500	1225.0	.9001-01	.1104	.1246	56.09	5.049	.4595	618.8	.1360-02
44	200.00	.99500	1227.0	.6921-01	.8483-01	.9563-01	56.36	3.901	.4569	615.4	.1045-02
44	220.00	.96500	1228.0	.5983-01	.7314-01	.8229-01	57.08	3.415	.4503	606.4	.9808-03
44	220.00	.97500	1229.0	.6030-01	.7378-01	.8306-01	56.83	3.426	.4526	609.6	.9086-03
44	220.00	.98500	1230.0	.5917-01	.7239-01	.8149-01	56.86	3.365	.4523	609.2	.8915-03
44	220.00	.99500	1231.0	.6365-01	.7786-01	.8764-01	56.90	3.622	.4520	608.7	.9589-03

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RCS (SKIRT SRB)

ARC3.5-211(IM48)OTS/NIPPLE/P/TRIP/INTS RCS SKIRT

(RANBE07)

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 <sup>6</sup>	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
53	.0000	.0000	5.300	4.868	405.9	1324.	323.7	.5347	203.9	.2201-03	3709.	.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HM/HT	TH DEG. R	STN NO R=0.9
53	184.38	.96500	1220.0	.1256	.1536	.1729	57.25	7.190	.4517	609.3	.1886-02
53	184.38	.97500	1221.0	.1347	.1651	.1861	56.72	7.642	.4566	616.0	.2027-02
53	184.38	.98500	1222.0	.1001	.1225	.1380	56.97	5.701	.4543	612.9	.1504-02
53	184.38	.99500	1223.0	.8366-01	.1022	.1150	57.44	4.805	.4499	607.0	.1256-02
53	200.00	.96500	1224.0	.1094	.1333	.1497	58.14	6.359	.4435	598.3	.1638-02
53	200.00	.97500	1225.0	.1123	.1370	.1539	57.92	6.503	.4455	601.0	.1683-02
53	200.00	.98500	1227.0	.7575-01	.9230-01	.1036	58.26	4.413	.4423	596.8	.1134-02
53	200.00	.99500	1228.0	.5658-01	.6870-01	.7694-01	59.23	3.351	.4333	584.5	.8445-03
53	220.00	.97500	1229.0	.6050-01	.7353-01	.8241-01	58.95	3.566	.4359	588.1	.9038-03
53	220.00	.98500	1230.0	.5257-01	.6390-01	.7162-01	58.95	3.099	.4359	588.1	.7854-03
53	220.00	.99500	1231.0	.5377-01	.6538-01	.7328-01	58.88	3.166	.4366	589.0	.8035-03



ARC3.5-211 (1H48)OTS/NIPPLE/P/TRIP RCS SKIRT

**PCS 5X1A7**

**RCS (SKIRT SRB)**

## PARAMETRIC DATA

ALPHA = .0000 BETA = -5.000 RN/L = 5.000

**...TEST CONDITIONS...**

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
1	10.0	10.0	0.80	0.027	14.0	130.4	118.4	5392	200.5	.2257-03	3679.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	H <sub>W</sub> /H <sub>T</sub>	TM DEG. R	STN NO R=0.9
54	184.38	.98500	1220.0	.2739	.2996	.3381	55.45	13.53	.4614	612.3	.3626-02
54	184.38	.97500	1221.0	.2398	.2952	.3337	54.87	13.16	.4669	619.7	.3573-02
54	184.38	.96500	1222.0	.1916	.2357	.2664	54.98	10.53	.4658	618.2	.2952-02
54	184.38	.95500	1223.0	.1682	.2056	.2333	55.36	9.310	.4623	613.5	.2501-02
54	200.00	.96500	1224.0	.2056	.2656	.2931	56.28	12.21	.4535	601.9	.3217-02
54	200.00	.97500	1225.0	.2093	.2564	.2890	56.06	11.73	.4557	604.8	.3195-02
54	200.00	.98500	1227.0	.1540	.1885	.2124	56.15	8.645	.4548	603.6	.2283-02
54	220.00	.96500	1228.0	.1013	.1235	.1387	57.26	5.799	.4473	589.7	.1497-02
54	220.00	.97500	1229.0	.1058	.1291	.1451	56.98	5.026	.4470	593.2	.1554-02
54	220.00	.98500	1230.0	.9644-01	.1177	.1324	56.93	5.490	.4475	593.8	.1427-02
54	220.00	.99500	1231.0	.8769-01	.1071	.1204	56.82	4.983	.4485	595.2	.1299-02

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(RANGE 00)

RCS SKIRT

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP

RCS (SKIRT SRB)

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000 RV/L &amp; 5.000

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
68	-5.000	-5.000	5.300	4.734	404.1	1344.	328.7	.5318	207.0	.2156	8738.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/H1	TH DEG. R	STN NO R=0.9
68	184.38	.35500	1220.0	.2281	.2796	.3151	57.46	13.11	.4570	626.1	.3472-02
68	184.38	.97500	1221.0	.2181	.2680	.3027	56.77	12.38	.4633	634.8	.3328-02
68	184.39	.98500	1222.0	.1699	.2086	.2355	56.97	9.678	.4615	632.3	.2590-02
69	184.39	.99500	1223.0	.1487	.1822	.2054	57.51	8.552	.4566	625.5	.2263-02
68	200.00	.96500	1224.0	.1934	.2363	.2657	58.35	11.28	.4489	615.0	.2935-02
59	200.00	.97500	1225.0	.1761	.2154	.2424	58.04	10.22	.4517	618.9	.2676-02
68	200.00	.99500	1227.0	.1381	.1688	.1898	58.34	8.059	.4490	615.2	.2097-02
68	220.00	.96500	1228.0	.1016	.1236	.1386	59.45	6.037	.4388	601.2	.1536-02
59	220.00	.97500	1229.0	.1042	.1269	.1425	59.08	6.153	.4422	605.9	.1577-02
68	220.00	.98500	1230.0	.8985-01	.1095	.1229	59.08	5.308	.4422	605.8	.1361-02
59	220.00	.99500	1231.0	.9004-01	.1097	.1232	59.09	5.320	.4421	605.7	.1364-02

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ARC3.5-2:1(1M48)OTS/NIPPLE/P/TRIP

RCS SKIRT

RCS (SKIRT SRB)

PARAMETRIC DATA

ALPHA = 5.000 BETA = -5.000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RND SLUG/ FT3	VINF FT/SEC	SCALE
77	5.000	-5.000	5.300	5.049	405.6	1293.	315.8	.5352	198.9	.2258-03	3664.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TN DEG. R	STN NO R=0.9
77	184.38	.95500	1220.0	.1475	.1815	.2052	54.20	7.994	.4657	614.3	.2195-02
77	184.38	.97500	1221.0	.1549	.1910	.2162	53.76	8.326	.4711	619.9	.2309-02
77	184.38	.98500	1222.0	.1172	.1445	.1635	53.81	6.305	.4705	619.2	.1746-02
77	184.38	.99500	1223.0	.9869-01	.1216	.1375	54.04	5.333	.4682	616.3	.1470-02
77	200.00	.95500	1224.0	.1302	.1599	.1804	54.81	7.136	.4609	606.6	.1933-02
77	200.00	.97500	1225.0	.1240	.1524	.1721	54.62	6.775	.4627	609.0	.1643-02
77	200.00	.99500	1226.0	.9691-01	.1191	.1344	54.52	5.293	.4545	598.2	.1440-02
77	220.00	.95500	1228.0	.8088-01	.9903-01	.1116	55.48	4.487	.4569	601.4	.1198-02
77	220.00	.97500	1229.0	.7582-01	.9293-01	.1048	55.22	4.187	.4573	601.8	.1124-02
77	220.00	.98500	1230.0	.7114-01	.8721-01	.9831-01	55.19	3.926	.4579	602.7	.1055-02
77	220.00	.99500	1231.0	.7117-01	.8727-01	.9839-01	55.12	3.923			.1056-02

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EXTERNAL TANK

ARC3.5-211(IH-8)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 1.500

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
8	.0000	.0000	5.200	1.488	114.1	1294.	315.9	.1685	205.5	.6894-04	3653.	.1750-01
9	.0000	.0000	5.200	1.437	114.4	1325.	324.0	.1687	210.7	.6720-04	3700.	.1750-01
10	.0000	.0000	5.200	1.474	118.0	1330.	325.1	.1740	211.5	.6905-04	3705.	.1750-01
11	.0000	.0000	5.200	1.434	114.9	1330.	325.4	.1694	211.6	.6719-04	3769.	.1750-01
12	.0000	.0000	5.200	1.421	114.2	1333.	326.0	.1693	212.0	.6662-04	3711.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
9	.0000	.0000	729.00	.4933	.5934	.6605	34.20	16.87	.4077	550.4	.1322-01
9	.0000	.3000-02	730.00	.3965	.4770	.5309	34.20	13.56	.4076	550.3	.1063-01
9	.0000	.0000-01	731.00	.5769-01	.6937-01	.7719-01	34.28	1.978	.4054	548.5	.1546-02
9	.0000	.0000-01	732.00	.1408-01	.1692-01	.1883-01	34.33	4.833	.4054	547.4	.3771-03
9	.0000	.3000-01	734.00	.6860-01	.8242-01	.9167-01	34.42	2.361	.4040	545.4	.1937-02
9	.0000	.3000-01	735.00	.2250	.2704	.3007	34.43	7.748	.4037	545.1	.6025-02
9	.0000	.4000-01	737.00	.3752	.4510	.5016	34.38	12.90	.4046	546.2	.1005-01
9	.0000	.4500-01	739.00	.3718	.4469	.4971	34.37	12.78	.4047	546.4	.9959-02
9	.0000	.3000-01	739.00	.2545	.3059	.3403	34.35	8.742	.4051	547.0	.6818-02
9	.0000	.3000-01	740.00	.2290	.2752	.3061	34.36	7.867	.4050	546.8	.6133-02
9	.0000	.5000-01	741.00	.2027	.2437	.2710	34.36	6.965	.4050	546.8	.5430-02
9	.0000	.3000-01	742.00	.1719	.2066	.2298	34.36	5.907	.4049	546.7	.4604-02
9	.0000	.3000-01	743.00	.1283	.1543	.1716	34.34	4.407	.4053	547.2	.3438-02
9	.0000	.1500	744.00	.9726-01	.1169	.1301	34.31	3.337	.4058	547.9	.2626-02
9	.0000	.1500	745.00	.5921-01	.7122-01	.7925-01	34.24	2.027	.4069	549.4	.1597-02
9	.0000	.2000	746.00	.3903-01	.4698-01	.5230-01	34.14	1.333	.4085	551.6	.1047-02
9	.0000	.2000	747.00	.3160-01	.3804-01	.4236-01	34.09	1.077	.4095	552.3	.8475-03
9	.0000	.2000	748.00	.2526-01	.3042-01	.3389-01	34.03	.8596	.4105	554.3	.5779-03
9	.0000	.2000	749.00	.2219-01	.2672-01	.2976-01	34.02	.7548	.4107	554.5	.5633-03
9	.0000	.2000	750.00	.1513-01	.1821-01	.2028-01	34.08	.5156	.4096	553.0	.4657-03
9	.0000	.3000	751.00	.1668-01	.2009-01	.2237-01	34.02	.5674	.4106	554.4	.4475-03
10	.0000	.3500	752.00	.1910-01	.2297-01	.2536-01	34.97	.6681	.4059	549.9	.5051-03
10	.0000	.4000	753.00	.2084-01	.2505-01	.2787-01	35.01	.7296	.4053	549.1	.5639-03

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ARC3.3-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	H/HMT	TH DEG. R	STN NO R=0.9
10	.00000	.50000	754.00	.4223-01	.5081-01	.5655-01	34.86	1.472	.4078	552.6	.1117-02
10	.00000	.60000	755.00	.3990-01	.4801-01	.5344-01	34.84	1.390	.4081	553.0	.1056-02
10	.00000	.70000	756.00	.3199-01	.3851-01	.4287-01	34.78	1.113	.4091	554.3	.8465-03
10	.00000	.80000	757.00	.2726-01	.3281-01	.3653-01	34.77	.9478	.4092	554.4	.7213-03
10	.00000	.90000	758.00	.2311-01	.2781-01	.3096-01	34.81	.8044	.4085	553.6	.6114-03
10	.55.000	.22000	759.00	.2661-01	.3203-01	.3365-01	34.80	.9259	.4088	553.9	.7041-03
10	.55.000	.25000	760.00	.1471-01	.1770-01	.1970-01	34.86	.5129	.4077	552.4	.3892-03
10	.55.000	.27000	761.00	.1681-01	.2022-01	.2251-01	34.88	.5852	.4075	552.1	.4446-03
10	.55.000	.30000	762.00	.1226-01	.1475-01	.1642-01	34.80	.4264	.4088	553.9	.3243-03
10	.55.000	.32000	763.00	.3352-01	.4035-01	.4492-01	34.79	1.166	.4089	554.1	.8870-03
10	.55.000	.34000	764.00	.4337-01	.5219-01	.5811-01	34.81	1.510	.4025	553.6	.1147-02
10	.55.000	.36000	765.00	.3539-01	.4259-01	.4741-01	34.82	1.233	.4083	553.3	.9364-03
10	.55.000	.38000	766.00	.7957-01	.9587-01	.1067	34.83	2.775	.4082	553.2	.2108-02
10	.55.000	.40000	767.00	.7549-01	.9084-01	.1011	34.82	2.629	.4083	553.3	.1397-02
10	.55.000	.23000	768.00	.2305-01	.2774-01	.3089-01	34.77	.8014	.4092	554.5	.5905-03
10	.67.500	.25000	769.00	.1439-01	.1730-01	.1926-01	34.85	.5013	.4078	552.5	.4516-03
10	.67.500	.27000	770.00	.1707-01	.2054-01	.2286-01	34.85	.5950	.4079	552.7	.3164-03
10	.67.500	.29000	771.00	.1196-01	.1439-01	.1602-01	34.84	.4167	.4080	552.8	.7715-03
10	.67.500	.30000	772.00	.2916-01	.3509-01	.3907-01	34.80	1.015	.4087	553.8	.5948-03
10	.67.500	.31000	773.00	.3759-01	.4525-01	.5038-01	34.78	1.308	.4090	554.2	.1122-02
10	.67.500	.32000	774.00	.4242-01	.5106-01	.5685-01	34.78	1.475	.4090	554.2	.1458-02
10	.67.500	.33000	775.00	.5509-01	.6631-01	.7392-01	34.79	1.917	.4088	554.0	.1913-02
10	.67.500	.33000	776.00	.7232-01	.8701-01	.9585-01	34.86	2.521	.4077	552.4	.2539-02
10	.67.500	.33000	777.00	.9595-01	.1155	.1286	34.78	3.338	.4085	553.7	.2826-02
10	.67.500	.34000	778.00	.1069	.1286	.1432	34.81	3.771	.4085	553.5	.3553-02
10	.67.500	.35000	780.00	.1347	.1621	.1804	34.81	4.678	.4083	553.2	.3755-02
10	.67.500	.35500	781.00	.1431	.1722	.1917	34.83	4.983	.4085	553.3	.3552-02
10	.67.500	.36000	782.00	.1342	.1615	.1798	34.81	4.673	.4083	553.2	.3028-02
10	.67.500	.36500	783.00	.1145	.1377	.1533	34.82	3.986	.4085	553.2	.2423-02
10	.67.500	.37000	784.00	.9160-01	.1102	.1227	34.83	3.190	.4082	553.2	.2201-02
10	.67.500	.37500	785.00	.8221-01	.1001	.1115	34.83	2.898	.4082	553.1	.1983-02
10	.67.500	.38000	786.00	.7494-01	.9018-01	.1004	34.82	2.610	.4084	553.4	.1638-02
10	.67.500	.38500	787.00	.6190-01	.7449-01	.8293-01	34.81	2.155	.4084	553.6	.1229-02
10	.67.500	.39000	788.00	.4667-01	.5357-01	.6520-01	34.81	1.694	.4085	555.8	.3542-03
10	.67.500	.40000	789.00	.1452-01	.1748-01	.1947-01	34.71	.5038	.4102	557.5	.3353-03
10	.67.500	.50000	790.00	.1270-01	.1530-01	.1704-01	34.64	.4399	.4114	557.9	.6222-03
10	.67.500	.60000	791.00	.2361-01	.2844-01	.3169-01	34.62	.8173	.4116	557.7	.5630-03
10	.67.500	.70000	792.00	.2126-01	.2561-01	.2854-01	34.71	.7351	.4101	555.8	.8256-03
10	.67.500	.80000	793.00	.3119-01	.3755-01	.4183-01	34.90	1.083	.4072	551.8	.4010-03
10	.67.500	.90000	794.00	.1515-01	.1824-01	.2030-01	34.89	.8415	.4078	552.6	.6379-03
10	.78.000	.29000	795.00	.2412-01	.2901-01	.3229-01	34.85	2.308	.4078	552.6	.1752-02
10	.78.000	.30000	796.00	.6622-01	.7957-01	.8868-01	34.85	5.509	.4079	552.7	.4162-02
10	.78.000	.31000	797.00	.1581	.1902	.2117	34.85				

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AMES 3.5-211 1M-8

ARC3.5-211(1M-8)OTS/NIPPLE/P/TRIP(0-S) EXT TANK

PAGE 84  
(RREF01)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ F12SEC	ODOT BTU/ F12SEC	M/HIT	TM DEG. R	STN NO R=0.9
10	78.000	32000	798.00	.1968	.2368	.2636	34.86	6.860	.4079	552.7	5207-02
10	78.000	32500	799.00	.1915	.2304	.2565	34.86	6.677	.4077	552.4	5057-02
10	78.000	33000	800.00	.1866	.2245	.2499	34.86	6.506	.4077	552.4	4937-02
10	78.000	33500	801.00	.1924	.2315	.2576	34.87	6.709	.4075	552.2	5069-02
10	78.000	34000	802.00	.1881	.2262	.2518	34.88	6.561	.4073	551.9	4974-02
10	78.000	34500	803.00	.1766	.2125	.2365	34.88	6.162	.4073	552.0	4672-02
10	78.000	35000	804.00	.1628	.1958	.2179	34.89	5.679	.4072	551.7	4305-02
10	78.000	35500	805.00	.1554	.1881	.2094	34.90	5.458	.4071	551.7	4137-02
10	78.000	36000	805.00	.1412	.1699	.1891	34.89	4.928	.4072	551.9	3736-02
10	78.000	36500	807.00	.1281	.1541	.1714	34.91	4.472	.4059	551.3	3387-02
10	78.000	37000	808.00	.1151	.1384	.1540	34.89	4.014	.4073	551.9	3043-02
10	78.000	37500	809.00	.1052	.1265	.1408	34.88	3.668	.4075	552.1	2782-02
10	78.000	38000	810.00	.8978-01	.1068	.1189	34.87	3.096	.4076	552.2	2348-02
10	78.000	39000	811.00	.6410-01	.7711-01	.8583-01	34.86	2.235	.4081	552.4	1695-02
10	78.000	40000	812.00	.4771-01	.5741-01	.6390-01	34.73	1.662	.4077	553.0	1262-02
12	90.000	40000-01	812.00	.3712	.4457	.4954	34.67	12.89	.4020	546.2	9922-02
12	90.000	50000-01	935.00	.3690	.4432	.4928	34.63	9.236	.4029	547.5	9226-02
12	90.000	60000-01	937.00	.2667	.3204	.3563	34.60	8.339	.4037	548.4	7175-02
12	90.000	70000-01	939.00	.2410	.2896	.3221	34.57	6.392	.4041	549.1	6485-02
12	90.000	80000-01	939.00	.2138	.2570	.2858	34.55	6.073	.4051	549.8	5754-02
12	90.000	100000-00	939.00	.1758	.2113	.2350	34.44	3.059	.4051	550.3	4731-02
12	90.000	15000	931.00	.6881-01	.1058	.1189	34.84	3.059	.4068	552.7	2392-02
12	90.000	20100	813.00	.2238-01	.2693-01	.2997-01	34.84	.7797	.4080	552.8	5820-03
10	90.000	24000	814.00	.1096-01	.2281-01	.2539-01	34.85	.6505	.4080	552.8	5316-03
10	90.000	25000	815.00	.1264-01	.1520-01	.1691-01	34.91	.4411	.4068	551.3	3342-03
10	90.000	26000	816.00	.1293-01	.1543-01	.1717-01	34.92	.4480	.4067	551.0	3332-03
10	90.000	28000	817.00	.8523-01	.1025	.1141	34.91	2.976	.4069	551.3	2234-02
10	90.000	30000	818.00	.2783	.3347	.3725	34.89	9.708	.4073	551.9	7350-02
10	90.000	31000	819.00	.2782	.3347	.3724	34.90	9.711	.4070	551.5	7358-02
10	90.000	32000	820.00	.2255	.2712	.3018	34.92	7.873	.4068	551.2	5353-02
10	90.000	32500	821.00	.2271	.2731	.3039	34.92	7.873	.4067	551.1	5355-02
10	90.000	33000	822.00	.2529	.3042	.3385	34.93	8.636	.4065	550.8	5359-02
10	90.000	34000	823.00	.2732	.3286	.3556	34.95	9.549	.4063	550.6	5359-02
10	90.000	34500	825.00	.3245	.3901	.4341	34.96	11.34	.4060	550.2	5359-02
10	90.000	35000	826.00	.4961	.5964	.6636	34.98	17.35	.4057	549.8	5359-02
10	90.000	36000	828.00	.4835	.5820	.6480	34.94	16.61	.4091	554.8	5359-02
10	90.000	36500	829.00	.4835	.5820	.6480	34.94	16.61	.4091	554.8	5359-02
10	90.000	37000	830.00	.1334	.1606	.1788	34.94	4.592	.4092	554.8	5359-02
10	90.000	37500	831.00	.9759-01	.1175	.1308	34.93	3.350	.4093	555.1	5359-02
10	90.000	38000	832.00	.6499-01	.7824-01	.8712-01	34.31	2.230	.4096	555.4	5359-02
10	90.000	39000	833.00	.3306-01	.4703-01	.5237-01	34.29	1.339	.4096	555.9	5359-02
10	90.000	40000	834.00	.3845-01	.4630-01	.5156-01	34.27	1.318	.4103	556.3	5359-02
10	90.000	50000	835.00	.1910-01	.2303-01	.2567-01	34.09	.6512	.4134	560.5	5359-02

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AMES 3.5-211 11449

ARC3.5-21111449OTS/NIPPLE/P/TRIP(10-S) EXT TANK

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(RANSF011)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H2/HT	TM DEG. R	STN NO R=0.9
11	90.000	.60000	836.00	.2872-01	.3463-01	.3860-01	34.05	.9782	.4138	561.1	.7716-03
11	90.000	.70000	837.00	.4392-01	.5298-01	.5906-01	34.01	1.494	.4147	562.3	.1180-02
11	90.000	.80000	838.00	.6001-01	.7236-01	.8066-01	34.05	2.043	.4140	561.4	.1612-02
11	90.000	.90000	839.00	.3741-01	.4509-01	.5025-01	34.12	1.277	.4128	559.7	.1055-02
11	112.50	.23000	840.00	.2049-01	.2468-01	.2749-01	34.24	.7016	.4108	557.1	.5500-03
11	112.50	.25000	841.00	.1446-01	.1742-01	.1940-01	34.26	.4955	.4105	556.6	.3822-03
11	112.50	.27000	842.00	.1271-01	.1535-01	.1709-01	34.26	.4367	.4104	556.5	.3420-03
11	112.50	.30000	843.00	.3082-01	.3712-01	.4135-01	34.31	1.056	.4105	556.6	.0273-03
11	112.50	.33000	844.00	.1122	.1351	.1504	34.31	3.849	.4096	555.4	.3010-02
11	112.50	.35000	845.00	.1455	.1752	.1950	34.34	4.996	.4092	554.9	.3504-02
11	112.50	.37000	846.00	.1007	.1212	.1350	34.35	3.460	.4090	554.6	.2702-02
11	112.50	.40000	847.00	.3983-01	.4794-01	.5338-01	34.35	1.368	.4090	554.6	.1059-02
11	112.50	.45000	848.00	.1733-01	.2087-01	.2324-01	34.29	.5942	.4100	555.9	.4550-03
11	112.50	.50000	849.00	.1608-01	.1937-01	.2158-01	34.19	.5497	.4117	558.2	.4317-03
11	112.50	.55000	850.00	.2084-01	.2511-01	.2798-01	34.16	.7118	.4122	558.9	.5596-03
11	112.50	.60000	851.00	.1642-01	.1978-01	.2204-01	34.18	.5613	.4118	559.3	.4409-03
11	112.50	.65000	852.00	.2286-01	.2753-01	.3066-01	34.25	.7828	.4107	556.9	.6135-03
11	112.50	.70000	853.00	.4369-01	.5266-01	.5869-01	34.11	1.490	.4130	560.1	.1173-02
11	112.50	.75000	854.00	.3919-01	.4724-01	.5264-01	34.12	1.337	.4129	559.8	.1553-02
11	112.50	.80000	855.00	.4815-01	.5804-01	.6467-01	34.12	1.643	.4126	559.5	.1245-02
11	112.50	.85000	856.00	.4641-01	.5593-01	.6233-01	34.13	1.584	.4133	560.4	.221-02
11	125.40	.84000	857.00	.3800-01	.4581-01	.5106-01	34.09	1.256	.4134	560.6	.6207-03
11	125.40	.85000	858.00	.3316-01	.3997-01	.4455-01	34.08	1.130	.4134	560.5	.7356-03
11	125.40	.86000	859.00	.2850-01	.3436-01	.3829-01	34.09	.9715	.4134	560.5	.5569-03
11	125.40	.87000	860.00	.2218-01	.2674-01	.2981-01	34.09	.7562	.4134	560.5	.6130-03
11	125.40	.88000	861.00	.2682-01	.2751-01	.3066-01	34.09	.7780	.4133	560.4	.7227-03
11	125.40	.89000	862.00	.2693-01	.3243-01	.3614-01	34.09	.9172	.4133	560.4	.8541-03
11	125.40	.90000	863.00	.3329-01	.4013-01	.4472-01	34.10	1.135	.4131	560.1	.1039-02
11	125.40	.91000	864.00	.3756-01	.4526-01	.5044-01	34.13	1.282	.4126	559.5	.1937-02
11	125.40	.92600	865.00	.7101-01	.8560-01	.9539-01	34.10	2.422	.4131	560.1	.5056-03
11	129.30	.80000	866.00	.3372-01	.4065-01	.4531-01	34.07	1.149	.4137	560.9	.8109-03
11	129.30	.81000	867.00	.3019-01	.3539-01	.4056-01	34.05	1.028	.4138	561.1	.7243-03
11	129.30	.82000	868.00	.2697-01	.3251-01	.3622-01	34.11	.9200	.4129	559.9	.6367-03
11	129.30	.83000	869.00	.3301-01	.3979-01	.4434-01	34.12	1.126	.4129	559.8	.1079-01
11	135.00	.40000-01	870.00	.4031	.4841	.5381	34.78	14.02	.4018	544.9	.1079-01
11	135.00	.50000-01	871.00	.3924	.4592	.5106	34.73	13.28	.4027	546.0	.1079-01
11	135.00	.60000-01	872.00	.2090	.3232	.3593	34.70	9.334	.4032	546.7	.7255-02
11	135.00	.70000-01	873.00	.2377	.2856	.3176	34.68	8.243	.4036	547.2	.5367-02
11	135.00	.80000-01	874.00	.2027	.2436	.2709	34.66	7.027	.4038	547.5	.5430-02
11	135.00	.90000-00	875.00	.1742	.2093	.2328	34.64	6.034	.4042	548.1	.4657-02
11	135.00	.15000	876.00	.6378-01	.1080	.1201	34.54	3.101	.4058	550.3	.2407-02
11	135.00	.20000	877.00	.3979-01	.4667-01	.5196-01	34.54	1.334	.4081	553.4	.1040-02
11	135.00	.35000	878.00	.4051-01	.4876-01	.5428-01	34.36	1.392	.4088	554.3	.1087-02

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ANES 3.5-211 1M48

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ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(10+S) EXT TANK

(R05F01)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/WT	TM DEG. R	STN NO R=0.9
11	135.00	40000	879.00	.3960-01	.4766-01	.5305-01	34.38	1.351	.4085	554.0	.1052-02
11	135.00	50000	880.00	.5647-01	.6803-01	.7578-01	34.21	1.932	.4112	557.6	.1516-02
11	135.00	60000	881.00	.8493-01	.1023	.1140	34.19	2.903	.4117	558.3	.2280-02
11	135.00	62000	882.00	.6148-01	.7407-01	.8252-01	34.19	2.102	.4116	558.2	.1651-02
11	135.00	65000	883.00	.6166-01	.7427-01	.8274-01	34.21	2.109	.4113	557.7	.1655-02
11	135.00	70000	884.00	.4518-01	.5446-01	.6069-01	34.12	1.542	.4128	559.8	.1213-02
11	135.00	75000	885.00	.4747-01	.5721-01	.6376-01	34.11	1.619	.4130	560.1	.1215-02
11	135.00	80000	886.00	.3288-01	.3964-01	.4417-01	34.10	1.121	.4132	560.3	.6832-03
11	135.00	84000	887.00	.6411-01	.7727-01	.8610-01	34.13	2.188	.4127	559.6	.1722-02
11	135.00	85000	888.00	.8038-01	.9687-01	.1080	34.12	2.742	.4128	559.8	.2159-02
11	135.00	85000	889.00	.5329-01	.6423-01	.7157-01	34.13	1.819	.4126	559.5	.1431-02
11	135.00	87000	890.00	.4653-01	.5608-01	.6250-01	34.12	1.588	.4129	559.8	.1250-02
11	135.00	88000	891.00	.4751-01	.5726-01	.6381-01	34.12	1.621	.4128	559.8	.1256-02
11	135.00	89000	892.00	.3967-01	.4782-01	.5328-01	34.14	1.354	.4127	559.7	.1086-02
11	135.00	90000	893.00	.4690-01	.5652-01	.6298-01	34.14	1.601	.4126	559.4	.1259-02
11	135.00	91000	894.00	.4069-01	.4904-01	.5464-01	34.15	1.390	.4123	559.1	.1033-02
11	135.00	92000	895.00	.5742-01	.6920-01	.7711-01	34.14	1.950	.4125	559.4	.1542-02
11	135.00	93000	896.00	.3780-01	.4555-01	.5076-01	34.13	1.290	.4127	559.6	.1015-02
11	142.30	93000	897.00	.4048-01	.4873-01	.5425-01	34.34	1.390	.4091	554.8	.1086-02
11	142.30	93000	898.00	.6100-01	.7343-01	.8176-01	34.33	2.094	.4092	554.9	.1637-02
11	142.30	93000	899.00	.5815-01	.7001-01	.7756-01	34.31	1.995	.4097	555.5	.1560-02
11	142.30	93000	900.00	.5952-01	.7151	.7882	34.19	3.266	.4116	558.1	.2534-02
11	142.30	93000	901.00	.5956-01	.7176-01	.7995-01	34.19	2.036	.4117	558.2	.2599-02
11	142.30	93000	902.00	.6292-01	.7583-01	.8450-01	34.13	2.148	.4126	559.5	.1690-02
12	154.98	93000	913.00	.1442	.1739	.1938	34.03	4.908	.4137	562.1	.2891-02
12	154.98	93000	914.00	.1484	.1789	.1993	34.10	5.061	.4126	560.5	.4014-02
12	157.50	93000-01	918.00	.2247	.2700	.3002	34.62	7.778	.4039	548.7	.6045-02
12	157.50	93000-01	919.00	.2120	.2547	.2832	34.61	7.336	.4040	548.9	.5703-02
12	157.50	920.00	920.00	.1686	.2026	.2253	34.60	5.834	.4041	549.1	.4537-02
12	157.50	925.00	922.00	.3752-01	.4514-01	.5025-01	34.39	1.230	.4077	553.9	.1011-02
12	157.50	925.00	924.00	.9719-01	.1122	.1249	34.31	3.197	.4091	555.8	.2511-02
12	157.50	925.00	925.00	.9688-01	.1166	.1299	34.29	3.322	.4094	556.2	.2611-02
12	157.50	926.00	926.00	.2487-01	.2998-01	.3341-01	34.04	.8467	.4134	561.7	.6710-03
12	157.50	927.00	927.00	.2226-01	.2684-01	.2991-01	34.05	.7573	.4134	561.7	.6006-03
12	157.50	928.00	928.00	.2228-01	.2686-01	.2993-01	34.04	.7584	.4134	561.7	.6011-03
12	157.50	929.00	929.00	.3251-01	.3919-01	.4368-01	34.04	2.001	.4135	561.7	.1586-02
12	157.50	930.00	930.00	.5879-01	.7087-01	.7899-01	34.06	2.888	.4131	561.3	.2287-02
12	157.50	931.00	931.00	.8477-01	.1022	.1139	34.09	3.319	.4127	560.7	.2226-02
12	157.50	932.00	932.00	.9735-01	.1173	.1308	34.32	2.612	.4088	555.5	.1580-02
12	163.12	934.00	934.00	.5962-01	.7055-01	.7855-01	34.31	2.317	.4090	555.7	.1819-02
12	163.12	935.00	935.00	.6752-01	.8127-01	.9048-01	34.29	3.416	.4094	556.2	.2686-02
12	163.12	937.00	937.00	.9962-01	.1199	.1335	34.28	4.404	.4095	556.4	.3463-02
12	163.12	938.00	938.00	.1285	.1547	.1722	34.28	4.404	.4095	556.4	.3463-02



PAGE 87  
180501

AVES 3.5-211 1:48  
ARC3.5-211 (H48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	H2O/H1	TM DEG. R	STN NO R=0.9
12	163.12	.44500	939.00	.1291	.1554	.1731	34.27	4.424	.4036	556.5	3479-02
12	163.12	.45000	940.00	.1343	.1617	.1801	34.26	4.603	.4058	556.8	3620-02
12	163.12	.50000	941.00	.6453-01	.1016	.1134	34.17	2.888	.4114	558.9	2279-02
12	163.12	.60000	942.00	.7023-01	.6459-01	.9423-01	34.20	2.402	.4109	558.3	1694-02
12	163.12	.70000	943.00	.4895-01	.5901-01	.6577-01	34.05	1.667	.4134	561.7	1321-02
12	163.12	.80000	944.00	.3576-01	.4311-01	.4805-01	34.04	1.217	.4136	561.9	9648-03
12	163.12	.95000	945.00	.1368-01	.1646-01	.1832-01	34.34	.4697	.4085	555.0	3685-03
12	168.00	.35000	946.00	.2677-01	.2896-01	.3586-01	34.35	.9192	.4084	554.9	7211-03
12	168.00	.37000	947.00	.4069-01	.4347-01	.5451-01	34.35	1.398	.4083	554.8	1056-02
12	168.00	.37500	948.00	.4443-01	.4728-01	.5889-01	34.35	1.526	.4084	554.9	1197-02
12	168.00	.38500	950.00	.3597-01	.428-01	.5052-01	34.37	1.235	.4081	554.4	9689-03
12	168.00	.39000	951.00	.4247-01	.5111-01	.5624-01	34.35	1.442	.4084	554.9	1144-02
12	168.00	.39300	952.00	.4198-01	.5052-01	.5554-01	34.33	1.650	.4085	555.0	1111-02
12	168.00	.39500	953.00	.4145-01	.4989-01	.5554-01	34.33	1.423	.4087	555.3	1235-02
12	168.00	.40000	954.00	.4807-01	.5785-01	.6441-01	34.31	1.894	.4087	555.7	1497-02
12	168.00	.41000	955.00	.5519-01	.6643-01	.7396-01	34.32	1.894	.4090	555.6	2226-02
12	168.00	.42000	956.00	.7520-01	.9052-01	1.008	34.31	2.541	.4091	555.8	2314-02
12	168.00	.42500	957.00	.8588-01	.9835-01	1.095	34.35	2.807	.4083	555.6	2223-02
12	168.00	.43000	958.00	.8173-01	.9835-01	1.095	34.33	5.185	.4090	555.2	4344-02
12	168.00	.44000	959.00	.1510	.1818	.2023	34.31	5.532	.4087	555.7	3236-02
12	168.00	.45000	960.00	.1612	.1941	.2161	34.31	4.197	.4090	555.0	3177-02
12	168.00	.46000	961.00	.1223	.1473	.1639	34.30	4.044	.4092	555.3	3742-02
12	168.00	.47000	962.00	.1179	.1419	.1580	34.30	4.750	.4093	556.0	3955-02
12	168.00	.48000	963.00	.1388	.1571	.1860	34.28	5.059	.4098	557.3	3742-02
12	168.00	.49000	964.00	.1479	.1780	.1982	34.26	4.758	.4102	557.7	2927-02
12	168.00	.50000	965.00	.1399	.1672	.1862	34.24	3.718	.4105	557.7	1632-02
12	168.00	.51000	966.00	.1086	.1308	.1456	34.22	2.072	.4126	560.5	7785-03
12	168.00	.52000	967.00	.6054-01	.7230-01	.8120-01	34.10	.9841	.4126	560.5	5455-03
12	168.00	.53000	968.00	.2886-01	.3478-01	.3876-01	34.10	1.059	.4126	560.6	3235-03
12	168.00	.54000	969.00	.3134-01	.3777-01	.4209-01	34.09	.9932	.4125	560.5	3729-03
12	168.00	.55000	970.00	.2904-01	.3500-01	.3901-01	34.10	1.101	.4125	560.5	1328-02
12	168.00	.56000	971.00	.3229-01	.3891-01	.4335-01	34.10	2.439	.4119	560.6	3175-02
12	168.00	.57000	972.00	.7153-01	.8520-01	.9605-01	34.14	4.020	.4118	560.5	2837-02
12	168.00	.58000	973.00	.1419	.1581	.1581	34.14	3.591	.4125	560.5	1183-02
12	168.00	.59000	974.00	.1052	.1267	.1412	34.10	1.502	.4125	560.5	1627-02
12	168.00	.60000	975.00	.4405-01	.5309-01	.5916-01	34.71	2.032	.4125	560.5	3211-02
12	168.00	.61000	982.00	.9706-01	.1166	.1295	34.74	3.373	.4018	560.5	3226-02
12	168.00	.62000	983.00	.6726-01	.1166	.1295	34.77	11.54	.4014	560.5	1070-01
12	168.00	.63000	984.00	.3320	.3995	.4430	32.99	13.34	.4123	560.5	9752-02
12	168.00	.64000	985.00	.3320	.3995	.4430	32.99	12.14	.4129	560.5	7170-02
12	168.00	.65000	986.00	.3584	.4440	.5427	32.96	8.694	.4132	560.5	6431-02
12	168.00	.66000	987.00	.2697	.3251	.3623	32.94	8.694	.4134	560.5	6431-02
12	168.00	.67000	988.00	.2429	.2928	.3264	32.93	8.694	.4134	560.5	6431-02

DATE 05 MAR 76

AVES 3.5-211 1H4B

ARC3.5-21111H4B1OTS/NIPPLE/P/TRIP(G+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TN DEG. R	STN NO R=2.9
8	180.00	80000-01	604.00	.2340	.2821	.3144	32.93	7.706	.4134	544.3	.6196-02
8	180.00	10000-00	605.00	.1544	.1852	.2075	32.92	5.083	.4136	544.5	.4080-02
8	180.00	15000	606.00	.8314-01	.1003	.1118	32.84	2.733	.4144	545.5	.2202-02
8	180.00	20000	607.00	.3900-01	.4705-01	.5248-01	32.78	1.279	.4159	547.6	.1033-02
8	180.00	21000	608.00	.3018-01	.3642-01	.4062-01	32.76	.9887	.4163	548.1	.7997-03
8	180.00	22000	609.00	.2347-01	.2833-01	.3160-01	32.74	.7685	.4167	548.5	.6220-03
8	180.00	30000	610.00	.1289-01	.1556-01	.1736-01	32.72	.4218	.4169	548.9	.3416-03
8	180.00	35000	611.00	.1173-01	.1415-01	.1579-01	32.74	.3839	.4167	548.6	.3108-03
8	180.00	36000	612.00	.2365-01	.2855-01	.3185-01	32.73	.7742	.4168	548.8	.6269-03
8	180.00	37000	613.00	.3840-01	.4635-01	.5170-01	32.72	1.257	.4169	548.9	.1018-02
8	180.00	37500	614.00	.4485-01	.5413-01	.6038-01	32.73	1.468	.4169	548.8	.1189-02
8	180.00	38000	615.00	.4771-01	.5759-01	.6424-01	32.73	1.562	.4169	548.8	.1265-02
8	180.00	39000	616.00	.4853-01	.5857-01	.6533-01	32.73	1.588	.4168	548.8	.1286-02
8	180.00	39500	617.00	.4864-01	.5872-01	.6550-01	32.72	1.592	.4170	549.0	.1279-02
8	180.00	40500	618.00	.6004-01	.7247-01	.8495-01	32.71	1.578	.4171	549.2	.1591-02
8	180.00	41000	621.00	.7914-01	.9553-01	.1066	32.71	1.964	.4172	549.1	.2098-02
8	180.00	41500	622.00	.9683-01	.1169	.1304	32.70	2.588	.4174	549.3	.2567-02
8	180.00	42500	624.00	.1360	.1642	.1831	32.76	3.166	.4174	549.5	.3605-02
8	180.00	43000	625.00	.1577	.1904	.2124	32.69	4.457	.4175	549.7	.4181-02
8	180.00	44000	626.00	.2376	.2868	.3199	32.70	5.155	.4173	549.4	.6297-02
8	180.00	44500	627.00	.3139	.3789	.4227	32.70	7.769	.4174	549.5	.8319-02
8	180.00	45000	628.00	.3353	.4048	.4516	32.70	10.96	.4174	549.5	.7522-02
8	180.00	45500	629.00	.2838	.3426	.3922	32.70	9.279	.4176	549.7	.5908-02
8	180.00	46000	630.00	.2229	.2691	.3002	32.69	7.285	.4175	549.7	.2758-02
8	180.00	47000	631.00	.1040	.1256	.1401	32.69	3.401	.4177	549.9	.1311-02
8	180.00	48000	632.00	.4947-01	.5972-01	.6663-01	32.68	1.617	.4177	549.9	.6985-03
8	180.00	49000	633.00	.2635-01	.3181-01	.3549-01	32.70	.5616	.4174	549.0	.1438-02
8	180.00	50000	634.00	.5425-01	.6548-01	.7304-01	32.72	1.775	.4170	549.0	.2376-02
8	180.00	55000	635.00	.8811-01	.1064	.1186	32.72	2.883	.4181	550.5	.2335-02
8	180.00	60000	636.00	.8463-01	.1082	.1208	32.65	2.927	.4184	550.8	.2021-02
8	180.00	637.00	637.00	.7624-01	.9207-01	.1027	32.64	2.489	.4180	550.3	.1526-02
8	180.00	638.00	638.00	.5755-01	.6951-01	.7755-01	32.66	1.880	.4180	550.3	.1363-02
8	180.00	639.00	639.00	.5141-01	.6206-01	.6923-01	32.70	1.681	.4173	549.4	.1156-02
8	180.00	640.00	640.00	.4369-01	.5274-01	.5884-01	32.68	1.428	.4176	549.8	.9701-03
8	180.00	641.00	641.00	.3660-01	.4418-01	.4929-01	32.69	1.196	.4176	549.9	.1039-02
8	180.00	642.00	642.00	.3721-01	.4734-01	.5282-01	32.68	1.281	.4177	549.9	.1030-02
8	180.00	643.00	643.00	.3884-01	.4690-01	.5232-01	32.68	1.269	.4177	549.7	.9481-03
8	180.00	644.00	644.00	.3577-01	.4318-01	.4817-01	32.69	1.169	.4176	549.6	.1980-02
8	180.00	645.00	645.00	.7469-01	.9016-01	.1006	32.69	2.442	.4175	549.0	.2968-02
8	180.00	646.00	646.00	.1120	.1352	.1508	32.72	3.664	.4170	549.7	.4116-03
8	180.00	649.00	649.00	.1553-01	.1874-01	.2091-01	32.69	.5075	.4175	547.7	.2879-03
8	191.25	35000	650.00	.1087-01	.1311-01	.1462-01	32.78	.3562	.4160		

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 05 MAR 76	AVES 3.5-211 1148	ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0+S) EXT TANK	STN NO R=0.9	TW DEG. R	MM/HT	ODOT BTU/ FT2SEC	ORCF BTU/ FT2SEC	H/REF R=0.95	H/REF R=0.9	H/REF R=1.0	TC NO	X/L	PHI	RUN NUMBER
			547.3	547.1	.4157	.7996	32.80	.3280-01	.2942-01	.2438-01	651.00	.36000	191.25	8
			546.7	546.7	.4156	1.384	32.80	.5676-01	.5090-01	.4219-01	652.00	.37000	191.25	8
			546.7	546.7	.4153	1.692	32.82	.6935-01	.6220-01	.5156-01	653.00	.37500	191.25	8
			546.8	546.8	.4153	1.917	32.82	.6572-01	.5984-01	.4961-01	654.00	.38000	191.25	8
			546.8	546.8	.4154	1.796	32.82	.7856-01	.7045-01	.5941-01	655.00	.38500	191.25	8
			547.2	547.2	.4154	1.904	32.81	.7363-01	.6603-01	.5474-01	656.00	.39000	191.25	8
			547.1	547.1	.4156	2.083	32.80	.7361-01	.6601-01	.5472-01	657.00	.39500	191.25	8
			546.7	546.7	.4153	2.251	32.80	.7811-01	.7004-01	.5806-01	658.00	.40000	191.25	8
			547.2	547.2	.4157	2.404	32.82	.8543-01	.7661-01	.6350-01	659.00	.40500	191.25	8
			547.1	547.1	.4156	3.355	32.80	.9225-01	.8274-01	.6859-01	660.00	.41000	191.25	8
			547.2	547.2	.4157	3.763	32.80	.9863-01	.8845-01	.7331-01	661.00	.41500	191.25	8
			547.2	547.2	.4157	5.074	32.80	.1376	.1234	.1023	662.00	.42000	191.25	8
			547.5	547.5	.4156	6.070	32.80	.1543	.1384	.1147	663.00	.42500	191.25	8
			547.6	547.6	.4159	4.784	32.80	.2490	.1974	.1636	664.00	.43000	191.25	8
			547.4	547.4	.4158	4.564	32.79	.1963	.1760	.1851	665.00	.44000	191.25	8
			547.6	547.6	.4160	5.074	32.79	.2082	.1680	.1392	666.00	.45000	191.25	8
			547.5	547.5	.4159	4.438	32.79	.1822	.1667	.1547	667.00	.45500	191.25	8
			547.5	547.5	.4158	2.814	32.79	.1471	.1320	.1094	668.00	.46000	191.25	8
			548.2	548.2	.4164	2.677	32.80	.1155	.1035	.8581-01	669.00	.47000	191.25	8
			556.0	556.0	.4118	1.977	32.76	.1098	.9848-01	.8163-01	670.00	.48000	191.25	8
			555.9	555.9	.4116	2.124	32.76	.7681-01	.6887-01	.5707-01	671.00	.49000	191.25	8
			555.8	555.8	.4117	1.556	33.95	.8124-01	.7284-01	.6036-01	672.00	.50000	191.25	8
			555.4	555.4	.4114	1.607	33.96	.8397-01	.7537-01	.6256-01	673.00	.50000	191.25	8
			555.1	555.1	.4111	2.285	33.96	.6547-01	.5877-01	.4878-01	674.00	.50000	191.25	8
			554.5	554.5	.4107	2.958	33.98	.6149-01	.5520-01	.4581-01	675.00	.50000	191.25	8
			555.1	555.1	.4108	2.826	33.97	.6353-01	.5702-01	.4733-01	676.00	.50000	191.25	8
			553.6	553.6	.4112	5.206	34.02	.9025-01	.8102-01	.6725-01	677.00	.50000	191.25	8
			553.4	553.4	.4100	.8985	34.01	.1167	.1048	.8701-01	678.00	.50000	191.25	8
			553.4	553.4	.4099	.4080	34.06	.1114	.1000	.8306-01	679.00	.50000	191.25	8
			553.2	553.2	.4097	.4012	34.07	.2053	.1844	.1531	680.00	.50000	191.25	8
			552.4	552.4	.4092	2.173	34.11	.3547-01	.3184-01	.2644-01	681.00	.50000	191.25	8
			552.3	552.3	.4091	2.988	34.05	.1938-01	.1740-01	.1445-01	682.00	.50000	191.25	8
			553.8	553.8	.4102	5.704	34.07	.1606-01	.1442-01	.1198-01	683.00	.50000	191.25	8
			555.2	555.2	.4112	2.172	34.11	.1579-01	.1418-01	.1176-01	684.00	.50000	191.25	8
			555.5	555.5	.4112	5.187	34.05	.3934-01	.3533-01	.2934-01	685.00	.50000	191.25	8
						1.595	33.97	.8539-01	.7669-01	.6371-01	686.00	.50000	191.25	8
								.1174	.1054	.8759-01	687.00	.50000	191.25	8
								.2247	.2017	.1675	688.00	.50000	191.25	8
								.6564-01	.6389-01	.6384-01	689.00	.50000	191.25	8
								.2048	.1839	.1526	690.00	.50000	191.25	8
								.6302-01	.5557-01	.4696-01	691.00	.50000	191.25	8
											692.00	.50000	191.25	8
											693.00	.50000	191.25	8
											694.00	.50000	191.25	8

AVES 3.5-211 1148

DATE 05 MAR 76

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/WHT	TH DEG. R	STN NO R=0.9
9	197.00	.87000	695.00	.5122-01	.6170-01	.6873-01	33.99	1.741	.4112	555.1	.1374-02
9	197.00	.92600	696.00	.1605	.1933	.2153	34.02	5.460	.4106	554.4	.4305-02
9	209.80	.15000-01	697.00	.6479-01	.7793-01	.8672-01	34.26	2.220	.4067	549.0	.1736-02
9	209.80	.30000-01	698.00	.3486	.4189	.4660	34.38	11.99	.4045	546.2	.9336-02
9	209.80	.50000-01	699.00	.3482	.4185	.4655	34.37	11.97	.4045	546.5	.9326-02
9	209.80	.70000-01	700.00	.2678	.3218	.3578	34.42	9.218	.4039	545.3	.7170-02
9	209.80	.10000-00	701.00	.2603	.3129	.3480	34.35	8.942	.4050	546.9	.6972-02
9	209.80	.15000	702.00	.1091	.1312	.1459	34.34	3.746	.4053	547.2	.2923-02
9	209.80	.20000	703.00	.4956-01	.5962-01	.6635-01	34.23	1.697	.4071	549.6	.1328-02
9	209.80	.30000	704.00	.3915-01	.4713-01	.5248-01	34.08	1.334	.4097	553.2	.1050-02
9	209.80	.35000	705.00	.4636-01	.5581-01	.6214-01	34.11	1.581	.4092	552.5	.1243-02
9	209.80	.37500	706.00	.1139	.1371	.1526	34.15	3.890	.4085	551.5	.3054-02
9	209.80	.50000	707.00	.9650-01	.1162	.1294	34.09	3.290	.4095	552.9	.2588-02
9	209.80	.60000	708.00	.7149-01	.8607-01	.9585-01	34.07	2.435	.4099	553.4	.1918-02
9	209.80	.70000	709.00	.7603-01	.9156-01	.1020	34.05	2.589	.4102	553.8	.2040-02
9	209.80	.80000	710.00	.2693-01	.3243-01	.3612-01	34.04	.9168	.4103	553.9	.7225-03
9	209.80	.87000	711.00	.2635-01	.3173-01	.3533-01	34.07	.8977	.4099	553.4	.2339-02
9	209.80	.92600	712.00	.8719-01	.1050	.1169	34.06	2.970	.4099	553.4	.7068-03
9	217.70	.15000-01	713.00	.6543-01	.7870-01	.8757-01	34.25	2.241	.4067	549.1	.1754-02
9	217.70	.30000-01	714.00	.3442	.4136	.4600	34.40	11.84	.4043	545.9	.9218-02
9	217.70	.50000-01	715.00	.3155	.3792	.4218	34.38	10.85	.4047	546.4	.8450-02
9	217.70	.70000-01	716.00	.3014	.3622	.4028	34.42	10.37	.4040	545.4	.8072-02
9	217.70	.10000-00	717.00	.1965	.2361	.2625	34.44	6.766	.4036	544.9	.5261-02
9	217.70	.15000	718.00	.1068	.1284	.1428	34.40	3.675	.4043	545.9	.2861-02
9	217.70	.20000	719.00	.4852-01	.5834-01	.6492-01	34.29	1.664	.4061	548.3	.1300-02
9	217.70	.30000	720.00	.2387-01	.2873-01	.3199-01	34.13	.8149	.4088	551.9	.6402-03
9	217.70	.35000	721.00	.4834-01	.5817-01	.6476-01	34.15	1.651	.4084	551.4	.1296-02
9	217.70	.37500	722.00	.3585-01	.4314-01	.4802-01	34.18	1.225	.4080	550.8	.9611-03
9	217.70	.50000	723.00	.8902-01	.1072	.1193	34.11	3.037	.4091	552.3	.2387-02
9	217.70	.60000	724.00	.5820-01	.7006-01	.7801-01	34.10	1.985	.4093	552.6	.1561-02
9	217.70	.70000	725.00	.4596-01	.5533-01	.6102-01	34.08	1.566	.4097	553.1	.1233-02
9	217.70	.80000	726.00	.2705-01	.3257-01	.3626-01	34.08	.9218	.4097	553.1	.7255-03
9	217.70	.87000	727.00	.5726-01	.6892-01	.7673-01	34.13	1.955	.4087	551.8	.1536-02
9	217.70	.92600	728.00	.7938-01	.9556-01	.1064	34.10	2.707	.4093	552.6	.2129-02

DATE 05 MAR 78  
AVES 3.5-211 IM48  
ARC3.5-211 IM4810TS/NIPPLE/P/TRIP(0.5) EXT TANK

EXTERNAL TANK  
PARAMETRIC DATA  
ALPHA = .0000 BETA = .0000 RN/L = 5.000

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	...TEST CONDITIONS...				VINP FT/SEC	SCALE
					PT PSIA	TT DEG. R	HT BTU/ LBH	PINF PSIA	TINF DEG. R	RHO/ SLUG/ FT3
16	.0000	.0000	5.300	4.841	398.4	1313.	320.9	.5252	202.1	.2181-03
17	.0000	.0000	5.300	4.934	408.5	1318.	322.2	.5383	202.9	.2226-03
18	.0000	.0000	5.300	4.986	410.2	1313.	320.8	.5405	202.0	.2246-03
19	.0000	.0000	5.300	5.326	409.4	1258.	306.8	.5412	193.2	.2351-03
20	.0000	.0000	5.300	4.395	398.4	1355.	342.0	.5226	215.4	.2036-03

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
17	.00000	.00000	729.00	.4685	.5710	.6412	58.07	27.20	.4431	595.0	.6973-02
17	.00000	.30000-02	730.00	.3928	.4787	.5373	58.17	22.85	.4422	593.7	.5845-02
17	.00000	.10000-01	731.00	.5691-01	.6923-01	.7764-01	58.60	3.335	.4382	588.4	.8456-03
17	.00000	.15000-01	732.00	.2343-01	.2848-01	.3182-01	58.86	1.379	.4357	585.1	.3479-03
17	.00000	.25000-01	734.00	.2913	.3532	.3953	59.51	17.33	.4298	577.1	.4317-02
17	.00000	.30000-01	735.00	.5388	.6533	.7308	59.59	32.11	.4290	576.0	.7983-02
17	.00000	.40000-01	737.00	.4852	.5888	.6592	59.29	28.77	.4318	579.7	.7154-02
17	.00000	.45000-01	738.00	.4823	.5855	.6557	59.17	28.54	.4329	581.2	.5645-02
17	.00000	.60000-01	739.00	.3803	.4621	.5178	58.91	22.40	.4351	584.5	.5409-02
17	.00000	.70000-01	740.00	.3644	.4428	.4961	58.93	21.47	.4356	584.2	.4185-02
17	.00000	.80000-01	741.00	.2819	.3426	.3840	58.89	16.60	.4355	584.9	.3575-02
17	.00000	.10000+00	742.00	.2408	.2926	.3279	58.87	14.18	.4357	585.0	.2685-02
17	.00000	.12500	743.00	.1808	.2198	.2463	58.87	10.65	.4367	586.4	.2093-02
17	.00000	.15000	744.00	.1409	.1713	.1921	58.76	8.281	.4386	588.9	.1328-02
17	.00000	.17500	745.00	.8937-01	.1087	.1220	58.56	5.233	.4410	592.2	.9081-03
17	.00000	.20000	746.00	.6106-01	.7436-01	.8345-01	58.30	3.559	.4416	592.9	.7553-03
17	.00000	.21500	747.00	.5077-01	.6185-01	.6942-01	58.24	2.957	.4404	591.3	.5939-03
17	.00000	.23000	748.00	.3994-01	.4863-01	.5457-01	58.36	2.331	.4374	587.4	.5759-03
17	.00000	.24000	749.00	.3876-01	.4714-01	.5286-01	58.68	2.275	.4305	578.0	.4536-03
17	.00000	.25000	750.00	.3050-01	.3712-01	.4154-01	59.43	1.819	.4393	589.9	.5767-03
17	.00000	.30000	751.00	.3880-01	.4722-01	.5297-01	58.48	2.269	.4462	596.6	.5466-03
17	.00000	.35000	752.00	.3686-01	.4498-01	.5055-01	57.59	2.123	.4478	598.4	.5408-03
18	.00000	.40000	753.00	.3645-01	.4450-01	.5003-01	57.45	2.094			

DATE 05 MAR 76

AMES 3.5-211 1H48

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(R-REF02)

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TM DEG. R	STN NO R=0.9
18	.00000	.50000	754.00	.5380-01	.6559-01	.7367-01	57.84	3.112	.4439	593.4	.7972-03
18	.00000	.60000	755.00	.4834-01	.5919-01	.6668-01	56.68	2.740	.4547	607.9	.7190-03
18	.00000	.70000	756.00	.4385-01	.5604-01	.6304-01	57.20	2.623	.4498	601.4	.6809-03
18	.00000	.80000	757.00	.3479-01	.4262-01	.4802-01	56.61	1.970	.4554	608.8	.5177-03
18	.00000	.90000	758.00	.3246-01	.3962-01	.4452-01	57.61	1.870	.4460	596.3	.4814-03
18	.55.000	.25000	759.00	.4380-01	.5343-01	.6003-01	57.69	2.527	.4453	595.3	.6494-03
18	.55.000	.25000	760.00	.2975-01	.3614-01	.4048-01	58.89	1.752	.4341	580.4	.4394-03
18	.55.000	.27000	761.00	.4013-01	.4869-01	.5451-01	59.19	2.375	.4314	576.7	.5922-03
18	.55.000	.30000	762.00	.3744-01	.4560-01	.5118-01	58.14	2.177	.4411	589.7	.5544-03
18	.55.000	.32000	763.00	.5188-01	.6328-01	.7109-01	57.74	2.996	.4448	594.6	.7691-03
18	.55.000	.34000	764.00	.5160-01	.7038-01	.7897-01	57.66	3.322	.4455	595.6	.8541-03
18	.55.000	.36000	765.00	.5166-01	.6303-01	.7083-01	57.66	2.979	.4455	595.6	.7660-03
18	.55.000	.38000	766.00	.9173-01	.1119	.1257	57.67	5.290	.4461	595.5	.1360-02
18	.55.000	.40000	767.00	.1042	.1271	.1428	57.60	5.999	.4454	598.5	.1545-02
18	.67.500	.23000	768.00	.3857-01	.4703-01	.5282-01	57.84	2.231	.4439	593.5	.5715-03
18	.67.500	.25000	769.00	.2745-01	.3334-01	.3735-01	58.86	1.616	.4344	580.7	.4055-03
18	.67.500	.27000	770.00	.4067-01	.4936-01	.5527-01	59.11	2.404	.4321	577.6	.6003-03
18	.67.500	.29000	771.00	.3495-01	.4248-01	.4760-01	58.76	2.054	.4353	582.0	.5165-03
18	.67.500	.30000	772.00	.5133-01	.6251-01	.7014-01	58.18	2.986	.4408	589.3	.7598-03
18	.67.500	.31000	773.00	.6268-01	.7641-01	.8580-01	57.89	3.629	.4434	592.8	.9286-03
18	.67.500	.32000	774.00	.6342-01	.7735-01	.8689-01	57.75	3.662	.4448	594.6	.9400-03
18	.67.500	.32500	775.00	.7515-01	.9166-01	.1030	57.74	4.339	.4448	594.7	.1114-02
18	.67.500	.33000	776.00	.9177-01	.1120	.1258	57.67	5.293	.4454	595.5	.1361-02
18	.67.500	.33500	777.00	.1175	.1434	.1611	57.67	6.777	.4455	595.6	.1743-02
18	.67.500	.34000	778.00	.1323	.1614	.1814	57.66	7.629	.4456	595.7	.1962-02
18	.67.500	.34500	779.00	.1541	.1880	.2112	57.66	8.885	.4456	595.7	.2284-02
18	.67.500	.35000	780.00	.1674	.2042	.2294	57.66	9.650	.4456	595.7	.2481-02
18	.67.500	.35500	781.00	.1850	.2257	.2536	57.65	10.67	.4457	595.8	.2743-02
18	.67.500	.36000	782.00	.1727	.2107	.2368	57.64	9.957	.4457	595.9	.2961-02
18	.67.500	.36500	783.00	.1566	.1911	.2147	57.64	9.028	.4453	595.3	.2322-02
18	.67.500	.37000	784.00	.1339	.1633	.1835	57.69	7.724	.4456	595.7	.1985-02
18	.67.500	.37500	785.00	.1207	.1472	.1655	57.65	6.959	.4456	595.7	.1789-02
18	.67.500	.38000	786.00	.1079	.1316	.1479	57.59	6.219	.4457	595.8	.1599-02
18	.67.500	.39000	787.00	.8587-01	.1048	.1178	57.54	4.945	.4462	596.6	.1273-02
18	.67.500	.40000	788.00	.6353-01	.7755-01	.8717-01	57.81	3.656	.4467	597.2	.9424-03
18	.67.500	.50000	789.00	.3073-01	.3748-01	.4209-01	57.81	1.777	.4442	593.8	.4555-03
18	.67.500	.60000	790.00	.2786-01	.3414-01	.3848-01	56.50	1.574	.4564	610.2	.4147-03
18	.67.500	.70000	791.00	.3994-01	.4884-01	.5496-01	57.06	2.279	.4511	603.1	.5933-03
18	.67.500	.80000	792.00	.3188-01	.3911-01	.4412-01	56.18	1.791	.4594	614.1	.4748-03
18	.67.500	.90000	793.00	.5760-01	.7035-01	.7911-01	57.37	3.305	.4483	599.3	.8548-03
18	.78.000	.27000	794.00	.4051-01	.4918-01	.5508-01	59.04	2.392	.4327	578.4	.5981-03
18	.78.000	.29000	795.00	.5136-01	.6244-01	.6998-01	58.67	3.014	.4361	583.1	.7591-03
18	.78.000	.30000	796.00	.9662-01	.1177	.1321	58.11	5.614	.4414	590.1	.1430-02

AMES 3.5-211 1H48  
ARC3.5-21111H4810TS/NIPPLE/P/TRIP(0.5) EXT TANK

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ F12SEC	ODOT BTU/ F12SEC	MM/HT	TM DEG. R	STN NO R=0.9
18	78.000	.31000	797.00	.1827	.2228	.2502	57.88	10.58	.4436	593.0	.2708-02
18	78.000	.32000	798.00	.2323	.2834	.3183	57.74	13.41	.4449	594.7	.3444-02
18	78.000	.32500	799.00	.2356	.2874	.3229	57.69	13.59	.4453	595.3	.3493-02
18	78.000	.33000	800.00	.2416	.2948	.3312	57.64	13.93	.4457	595.9	.3582-02
18	78.000	.33500	801.00	.2494	.3043	.3420	57.59	14.36	.4462	596.6	.3698-02
18	78.000	.34000	802.00	.2711	.3309	.3719	57.58	15.61	.4463	596.7	.4021-02
18	78.000	.34500	803.00	.2347	.2864	.3319	57.54	13.51	.4467	597.2	.3480-02
18	78.000	.35000	804.00	.2154	.2629	.2955	57.54	12.39	.4466	597.1	.2727-02
18	78.000	.36000	805.00	.1838	.2244	.2522	57.55	10.58	.4450	596.0	.2402-02
18	78.000	.36500	807.00	.1620	.1977	.2221	57.64	9.338	.4471	597.8	.2139-02
18	78.000	.37000	808.00	.1442	.1760	.1979	57.49	8.290	.4473	598.0	.1909-02
18	78.000	.37500	809.00	.1287	.1571	.1766	57.47	7.397	.4475	598.3	.1569-02
18	78.000	.38000	810.00	.1058	.1291	.1452	57.45	6.076	.4479	598.8	.1094-02
18	78.000	.39000	811.00	.7371-01	.9001-01	.1012	57.41	4.232	.4486	599.7	.8012-03
18	78.000	.40000	812.00	.5398-01	.6594-01	.7415-01	57.34	3.095	.4486	599.7	.7034-02
20	90.000	.40000-01	995.00	.4567	.5467	.6066	66.71	30.46	.3930	560.2	.6900-02
20	90.000	.50000-01	986.00	.4476	.5364	.5954	66.39	29.72	.3957	564.1	.5858-02
20	90.000	.60000-01	987.00	.3799	.4555	.5058	66.22	25.16	.3972	566.2	.5636-02
20	90.000	.70000-01	988.00	.3654	.4381	.4866	66.15	24.17	.3979	567.2	.6272-02
20	90.000	.80000-01	989.00	.4066	.4876	.5416	66.11	26.88	.3983	567.7	.4011-02
20	90.000	.10000+00	990.00	.2500	.3119	.3464	66.02	17.16	.3990	568.7	.2092-02
20	90.000	.15000	991.00	.1355	.1627	.1808	65.72	8.905	.4017	572.6	.5997-03
18	90.000	.20100	813.00	.4049-01	.4934-01	.5539-01	58.02	2.349	.4422	591.2	.4928-03
18	90.000	.24000	814.00	.3330-01	.4054-01	.4548-01	58.30	1.942	.4396	587.7	.4035-03
18	90.000	.25000	815.00	.2732-01	.3318-01	.3716-01	58.98	1.611	.4333	579.3	.5602-03
18	90.000	.27000	816.00	.3796-01	.4606-01	.5157-01	59.16	2.245	.4316	577.0	.1925-02
18	90.000	.29000	817.00	.1303	.1583	.1774	58.72	7.651	.4357	582.4	.4706-02
18	90.000	.30000	818.00	.3871	.4343	.4343	58.28	18.53	.4398	588.0	.4950-02
18	90.000	.31000	819.00	.3343	.4072	.4571	58.09	19.42	.4415	591.7	.4435-02
18	90.000	.32000	820.00	.2994	.3649	.4097	57.98	17.36	.4426	592.8	.4407-02
18	90.000	.32500	821.00	.2975	.3626	.4072	57.89	17.22	.4434	592.9	.5318-02
18	90.000	.33000	822.00	.3589	.4375	.4914	57.88	20.77	.4438	593.3	.5403-02
18	90.000	.34000	824.00	.3646	.4446	.4993	57.85	21.10	.4435	592.9	.6837-02
18	90.000	.34500	825.00	.4615	.5626	.6318	57.88	26.71	.4437	593.2	.8779-02
18	90.000	.35000	826.00	.5925	.7223	.8112	57.86	34.28	.4437	593.2	.5583-03
18	90.000	.36000	828.00	.3923-01	.4725-01	.5358-01	51.85	1.982	.4763	608.9	.5582-03
19	90.000	.36500	829.00	.3919-01	.4725-01	.5361-01	51.64	1.973	.4782	611.4	.8535-03
19	90.000	.37000	830.00	.5854-01	.7222-01	.8176-01	52.30	3.062	.4718	603.2	.7397-03
19	90.000	.37500	831.00	.5047-01	.6263-01	.7121-01	50.98	2.573	.4848	619.8	.7315-03
19	90.000	.38000	832.00	.5005-01	.6191-01	.7024-01	51.66	2.586	.4781	611.2	.5145-03
19	90.000	.39000	833.00	.3510-01	.4356-01	.4953-01	50.95	1.788	.4851	620.2	.4920-03
19	90.000	.40000	834.00	.3372-01	.4161-01	.4718-01	52.06	1.755	.4742	606.2	.7447-03
19	90.000	.50000	835.00	.5101-01	.6302-01	.7143-01	51.95	2.650	.4753	607.6	

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 05 MAR 76

AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(10+S) EXT TANK

PAGE 54

(R08F02)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TN DEG. R	STN NO R=0.9
19	90.000	.60000	836.00	.3461-01	.4251-01	.4798-01	53.34	1.846	.4616	590.2	.5026-03
19	90.000	.70000	837.00	.4230-01	.5188-01	.5850-01	53.67	2.270	.4584	586.0	.6136-03
19	90.000	.80000	838.00	.3573-01	.4404-01	.4983-01	52.50	1.876	.4699	600.7	.5205-03
19	90.000	.90000	839.00	.4755-01	.5873-01	.6656-01	51.98	2.472	.4749	607.2	.6940-03
19	112.50	.23000	840.00	.4230-01	.5229-01	.5930-01	51.81	2.191	.4767	609.4	.6179-03
19	112.50	.25000	841.00	.3973-01	.4912-01	.5571-01	51.77	2.057	.4770	609.8	.5804-03
19	112.50	.27000	842.00	.7818-01	.9790-01	.1110	51.75	4.098	.4772	610.1	.1157-02
19	112.50	.30000	843.00	.1091	.1349	.1531	51.67	5.636	.4780	611.1	.1594-02
19	112.50	.33000	844.00	.4737-01	.5847-01	.6624-01	52.13	2.469	.4735	605.3	.6910-03
19	112.50	.35000	845.00	.3511-01	.4313-01	.4869-01	53.28	1.871	.4622	590.9	.5100-03
19	112.50	.37000	846.00	.4818-01	.5910-01	.6667-01	53.58	2.582	.4591	587.0	.6990-03
19	112.50	.40000	847.00	.3412-01	.4194-01	.4736-01	53.17	1.814	.4633	592.3	.4558-03
19	112.50	.45000	848.00	.4912-01	.6054-01	.6851-01	52.50	2.579	.4698	600.6	.7156-03
19	112.50	.50000	849.00	.5870-01	.7245-01	.8206-01	52.16	3.062	.4731	604.9	.8562-03
19	112.50	.55000	850.00	.5606-01	.6926-01	.7850-01	51.96	2.913	.4752	607.5	.9184-03
19	112.50	.60000	851.00	.6744-01	.8209-01	.9305-01	51.93	3.451	.4754	607.8	.9700-03
19	112.50	.65000	852.00	.8051-01	.9952-01	.1128	51.84	4.174	.4763	609.0	.1176-02
19	112.50	.70000	853.00	.1003	.1240	.1406	51.78	5.193	.4769	609.7	.1465-02
19	112.50	.75000	854.00	.1242	.1535	.1740	51.81	6.432	.4767	609.4	.1813-02
19	112.50	.80000	855.00	.1427	.1765	.2001	51.78	7.391	.4769	609.7	.2085-02
19	112.50	.85000	856.00	.1568	.1938	.2198	51.77	8.116	.4770	609.9	.2290-02
19	125.40	.90000	857.00	.1817	.2247	.2548	51.75	9.402	.4772	610.1	.2654-02
19	125.40	.95000	858.00	.1696	.2098	.2379	51.73	8.776	.4774	610.3	.2479-02
19	125.40	.98000	859.00	.1530	.1892	.2145	51.73	7.912	.4774	610.4	.2235-02
19	125.40	.99000	860.00	.1297	.1604	.1819	51.76	6.714	.4771	609.9	.1895-02
19	125.40	.99000	861.00	.1184	.1464	.1660	51.73	6.123	.4774	610.3	.1729-02
19	125.40	.99000	862.00	.1061	.1313	.1489	51.72	5.490	.4775	610.4	.1551-02
19	125.40	.99000	863.00	.8403-01	.1039	.1179	51.66	4.341	.4781	611.2	.1228-02
19	125.40	.99000	864.00	.5490-01	.6793-01	.7708-01	51.61	2.834	.4786	611.8	.8026-03
19	125.40	.99000	865.00	.2816-01	.3476-01	.3937-01	52.16	1.469	.4732	604.9	.4108-03
19	129.30	.90000	866.00	.2914-01	.3623-01	.4125-01	50.52	1.472	.4893	625.6	.4278-03
19	129.30	.81000	867.00	.4468-01	.5536-01	.6287-01	51.33	2.293	.4814	615.4	.6539-03
19	129.30	.82000	868.00	.3266-01	.4065-01	.4631-01	50.36	1.645	.4909	627.6	.4759-03
19	129.30	.83000	869.00	.6064-01	.7498-01	.8503-01	51.77	3.140	.4770	609.8	.6859-03
19	129.30	.84000	870.00	.4520-01	.5545-01	.6253-01	53.62	2.424	.4588	586.6	.6557-03
19	135.00	.70000	871.00	.5050-01	.6206-01	.7007-01	53.19	2.686	.4631	592.1	.7337-03
19	135.00	.75000	872.00	.8685-01	.1070	.1211	52.55	4.564	.4694	600.1	.1265-02
19	135.00	.80000	873.00	.1603	.1978	.2239	52.25	8.375	.4723	603.8	.2337-02
19	135.00	.85000	874.00	.2157	.2664	.3019	52.06	10.25	.4742	606.2	.2672-02
19	135.00	.90000	875.00	.1984	.2451	.2779	51.99	11.21	.4748	607.1	.3148-02
19	135.00	.95000	876.00	.2234	.2761	.3130	51.93	10.30	.4755	607.9	.2837-02
19	135.00	.99000	877.00	.2613	.3230	.3663	51.82	11.58	.4763	608.9	.3252-02
19	135.00	.99000	878.00					13.54	.4765	609.2	.3517-02



DATE 05 MAR 76

AMES 3.5-211 1448

APC3.5-211(1448)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	CREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TN DEO. R	STN NO R=0.9
19	135.00	.40000	579.00	.2242	.2771	.3142	51.81	11.61	.4766	609.4	3274-02
19	135.00	.50000	880.00	.1916	.2369	.2686	51.78	9.920	.4770	609.8	.2799-02
19	135.00	.55000	881.00	.1891	.2338	.2652	51.74	9.783	.4773	610.2	.2762-02
19	135.00	.60000	882.00	.1658	.2050	.2325	51.76	8.581	.4771	610.0	.2422-02
19	135.00	.65000	883.00	.1447	.1788	.2027	51.86	7.502	.4762	608.8	.2113-02
19	135.00	.70000	884.00	.1251	.1548	.1755	51.70	6.469	.4777	610.7	.1828-02
19	135.00	.75000	885.00	.1237	.1530	.1736	51.68	6.393	.4779	610.9	.1808-02
19	135.00	.80000	886.00	.1024	.1266	.1437	51.66	5.288	.4781	611.3	.1496-02
19	135.00	.85000	887.00	.7157-01	.8855-01	.1005	51.62	3.695	.4785	611.7	.1046-02
19	135.00	.85000	888.00	.5161-01	.6387-01	.7249-01	51.53	2.659	.4793	612.8	.7546-03
19	135.00	.85000	889.00	.4456-01	.5495-01	.6221-01	52.37	2.334	.4711	602.3	.6495-03
19	135.00	.87000	890.00	.4344-01	.5349-01	.6048-01	52.74	2.291	.4675	597.7	.6323-03
19	135.00	.88000	891.00	.3365-01	.4130-01	.4659-01	53.50	1.800	.4577	588.1	.4684-03
19	135.00	.89000	892.00	.4145-01	.5082-01	.5729-01	53.74	2.227	.4577	595.2	.6010-03
19	135.00	.90000	893.00	.1236	.1518	.1715	53.22	6.577	.4628	591.7	.1795-02
19	135.00	.91000	894.00	.2656	.3271	.3699	52.69	13.99	.4680	599.3	.3866-02
19	135.00	.92500	895.00	.2785	.3433	.3886	52.45	14.61	.4703	601.3	.4058-02
19	135.00	.95000	896.00	.2502	.3087	.3495	52.27	13.08	.4721	603.6	.3648-02
19	142.30	.42000	897.00	.2773	.3422	.3876	52.16	14.46	.4732	605.0	.4044-02
19	142.30	.43500	898.00	.3514	.4338	.4914	52.11	18.31	.4737	605.6	.5126-02
19	142.30	.45000	899.00	.4093	.5054	.5726	52.08	21.32	.4739	605.9	.5972-02
19	142.30	.50000	900.00	.3331	.4114	.4661	52.04	17.34	.4743	606.4	.4851-02
19	142.30	.60000	901.00	.4205	.5192	.5882	52.08	21.90	.4740	606.0	.6135-02
19	154.98	.93500	902.00	.5265	.6501	.7366	52.05	27.40	.4742	606.3	.7692-02
20	154.98	.94500	913.00	.2152	.2576	.2858	66.68	14.35	.3932	560.5	.3314-02
20	154.98	.94500	914.00	.1814	.2172	.2409	66.81	12.12	.3920	558.8	.2794-02
20	157.50	.70000-01	918.00	.3382	.4056	.4505	66.12	22.36	.3982	557.5	.5217-02
20	157.50	.80000-01	919.00	.2827	.3389	.3764	66.15	18.70	.3973	557.2	.4360-02
20	157.50	.10000-00	920.00	.2367	.2838	.3151	66.19	15.67	.3975	566.6	.3650-02
20	157.50	.45000	922.00	.6541-01	.7843-01	.8709-01	66.20	4.330	.3975	566.6	.1009-02
20	157.50	.45000	924.00	.1064	.1275	.1415	66.34	7.056	.3962	564.8	.1640-02
20	157.50	.45000	925.00	.1021	.1223	.1358	66.54	6.797	.3944	562.2	.1574-02
20	157.50	.85000	926.00	.4660-01	.5577-01	.6186-01	66.85	3.115	.3917	558.4	.7176-02
20	157.50	.85000	927.00	.5560-01	.6655-01	.7381-01	66.80	5.287	.3921	559.0	.8562-03
20	157.50	.87000	928.00	.7916-01	.9475-01	.1051	66.79	3.714	.3923	559.2	.1219-02
20	157.50	.88000	929.00	.7383-01	.8837-01	.9803-01	66.77	4.930	.3924	559.3	.1137-02
20	157.50	.89000	930.00	.8342-01	.9983-01	.1107	60.84	5.575	.3918	558.5	.1285-02
20	157.50	.90000	931.00	.1050	.1256	.1393	67.02	7.040	.3903	556.3	.1617-02
20	157.50	.91000	932.00	.1019	.1218	.1350	67.26	6.855	.3882	553.3	.1568-02
20	157.50	.92600	933.00	.2130	.2548	.2826	66.94	5.070	.3909	557.2	.3273-02
20	157.50	.41500	934.00	.7641-01	.9158-01	.1017	66.34	5.229	.3962	564.7	.1178-02
20	163.12	.42000	935.00	.7894-01	.9463-01	.1051	66.25	5.229	.3970	565.9	.1217-02
20	163.12	.43000	937.00	.1160	.1391	.1546	66.07	7.665	.3986	568.1	.1790-02

DATE 05 MAR 76 AMES 3.5-211 1H48 ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+5) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF r=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TM DEG. R	STN NO R=0.9
20	163.12	.44000	938.00	.1657	.1987	.2207	66.11	10.96	.3982	567.6	.2556-02
20	163.12	.44500	939.00	.1625	.1948	.2163	66.27	10.77	.3968	565.6	.2505-02
20	163.12	.45000	940.00	.1621	.1943	.2157	66.35	10.76	.3961	564.6	.2500-02
20	163.12	.50000	941.00	.1138	.1362	.1510	66.90	7.614	.3913	557.7	.1752-02
20	163.12	.60000	942.00	.8681-01	.1040	.1154	66.56	5.778	.3942	551.9	.1338-02
20	163.12	.70000	943.00	.7693-01	.9207-01	.1021	66.82	5.140	.3920	558.7	.1185-02
20	163.12	.80000	944.00	.5192-01	.6214-01	.6892-01	66.80	3.468	.3921	559.0	.7995-03
20	163.00	.35000	945.00	.3847-01	.4638-01	.5115-01	66.48	2.557	.3950	563.0	.5929-03
20	168.00	.36000	946.00	.3811-01	.4565-01	.5067-01	66.47	2.533	.3950	563.1	.5873-03
20	169.00	.37000	947.00	.4069-01	.4875-01	.5411-01	66.46	2.704	.3951	563.2	.6272-03
20	168.00	.37500	948.00	.6932-01	.8306-01	.9220-01	66.43	4.605	.3954	563.6	.1059-02
20	168.00	.38500	950.00	.5778-01	.6922-01	.7683-01	66.50	3.842	.3948	562.8	.8995-03
20	169.00	.39000	951.00	.5164-01	.6189-01	.6870-01	66.38	3.428	.3959	564.3	.7551-03
20	168.00	.39500	952.00	.5000-01	.5992-01	.6652-01	66.36	3.318	.3960	564.4	.7708-03
20	168.00	.40000	953.00	.4964-01	.5949-01	.6605-01	66.34	3.293	.3962	564.8	.7653-03
20	168.00	.40500	954.00	.5491-01	.6581-01	.7306-01	66.31	3.641	.3965	565.1	.6465-03
20	168.00	.41000	955.00	.5652-01	.6771-01	.7515-01	66.48	3.757	.3950	563.0	.8711-03
20	168.00	.41500	956.00	.7822-01	.9378-01	.1041	66.22	5.179	.3973	566.3	.1205-02
20	168.00	.42000	957.00	.9044-01	.1084	.1204	66.18	5.985	.3976	566.8	.1395-02
20	168.00	.42500	959.00	.9468-01	.1135	.1260	66.26	6.273	.3969	565.8	.1450-02
20	168.00	.43000	959.00	.1573	.1887	.2096	66.07	10.39	.3986	568.2	.2427-02
20	168.00	.43500	959.00	.1800	.2159	.2398	66.08	11.89	.3985	568.0	.2777-02
20	168.00	.44000	961.00	.1599	.1916	.2127	66.21	10.58	.3974	566.4	.2454-02
20	168.00	.44500	962.00	.1653	.1982	.2200	66.31	10.96	.3965	565.1	.2449-02
20	168.00	.45000	963.00	.1853	.2221	.2466	66.38	12.30	.3958	564.2	.2657-02
20	168.00	.45500	964.00	.2021	.2422	.2688	66.42	13.42	.3955	563.8	.3116-02
20	168.00	.46000	965.00	.1800	.2156	.2393	66.52	11.97	.3946	562.5	.2774-02
20	168.00	.46500	966.00	.1427	.1709	.1895	66.61	9.503	.3938	561.4	.2198-02
20	168.00	.47000	967.00	.8429-01	.1009	.1119	66.76	5.628	.3925	559.4	.1298-02
20	168.00	.47500	967.00	.4505-01	.5511-01	.6112-01	66.89	3.080	.3914	557.9	.7091-03
20	168.00	.48000	968.00	.5769-01	.6927-01	.7683-01	66.85	3.970	.3917	558.3	.6913-03
20	168.00	.48500	969.00	.9200-01	.1101	.1221	66.82	6.148	.3920	558.7	.1417-02
20	168.00	.49000	970.00	.9994-01	.1194	.1194	66.85	6.013	.3917	559.3	.1365-02
20	168.00	.49500	971.00	.9994-01	.1076	.1324	66.94	6.681	.3909	557.3	.1557-02
20	168.00	.50000	972.00	.1052	.1258	.1395	67.16	7.057	.3890	554.5	.1619-02
20	168.00	.50500	973.00	.9733-01	.1163	.1289	67.39	6.561	.3870	551.6	.1537-02
20	168.00	.51000	974.00	.3605	.4194	.4649	67.04	2.150	.3901	556.0	.5256-02
20	168.00	.51500	975.00	.5800-01	.6799-01	.7542-01	66.78	3.794	.3923	559.2	.8448-03
20	168.00	.52000	976.00	.1614	.1936	.2150	66.08	10.67	.3935	568.0	.2490-02
20	168.00	.52500	983.00	.3958	.4523	.5132	66.37	25.60	.3959	564.4	.5977-02
20	168.00	.53000	984.00	.5379	.7043	.7817	66.49	39.09	.3949	567.9	.9001-02
20	168.00	.53500	984.00	.4335	.6005	.6735	57.55	28.40	.3889	562.0	.7448-02
20	168.00	.54000	984.00	.4288	.5222	.5860	57.34	24.59	.4409	589.7	.6442-02

ORIGINAL PAGE IS  
POOR QUALITY

PAGE 97  
(RMSF02)

DATE 05 MAR 76

APES 3.5-211 1M8

ARC3.5-211(1M8)OTS/NIPPLE/P/TRIP(10+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	H/HWT	TM DEG. R	STN NO R=0.9
16	180.00	.60000-01	602.00	.4128	.5028	.5544	57.25	23.63	.4418	590.8	.6203-02
16	180.00	.70000-01	603.00	.3490	.4252	.4774	57.20	19.96	.4423	591.5	.5245-02
16	180.00	.80000-01	604.00	.3164	.3856	.4329	57.18	18.09	.4425	591.8	.4756-02
16	180.00	.90000+00	605.00	.2239	.2728	.3062	57.20	12.80	.4423	591.5	.3365-02
16	180.00		606.00	.1304	.1589	.1783	57.27	7.469	.4416	590.7	.1950-02
16	180.00		607.00	.6293-01	.7667-01	.8607-01	57.24	3.602	.4419	591.0	.9458-03
16	180.00	.20000	608.00	.4923-01	.5997-01	.6730-01	57.30	2.821	.4413	590.2	.7397-03
16	180.00	.21000	609.00	.4144-01	.5046-01	.5663-01	57.33	2.377	.4408	589.5	.6225-03
16	180.00	.30000	610.00	.3603-01	.4380-01	.4910-01	57.82	2.083	.4364	583.6	.5405-03
16	180.00	.35000	611.00	.3348-01	.4077-01	.4575-01	57.38	1.921	.4406	589.2	.5029-03
16	180.00	.36000	612.00	.3243-01	.3950-01	.4433-01	57.33	1.859	.4411	589.9	.4873-03
16	180.00	.37000	613.00	.3563-01	.4340-01	.4871-01	57.30	2.041	.4414	590.3	.5353-03
16	180.00	.37500	614.00	.6284-01	.7655-01	.8593-01	57.27	3.599	.4416	590.6	.9443-03
16	180.00	.38000	615.00	.7362-01	.8969-01	.1037	57.25	4.215	.4418	590.9	.1105-02
16	180.00	.38500	616.00	.6045-01	.7365-01	.8268-01	57.21	3.458	.4422	591.4	.9085-03
16	180.00	.39000	617.00	.5501-01	.6703-01	.7526-01	57.17	3.145	.4426	591.9	.8428-03
16	180.00	.39500	618.00	.5594-01	.6817-01	.7653-01	57.18	3.199	.4425	591.7	.8269-03
16	180.00	.40000	619.00	.5915-01	.7009-01	.8094-01	57.14	3.380	.4428	592.2	.8950-03
16	180.00	.40500	620.00	.6359-01	.7751-01	.8704-01	57.11	3.632	.4431	592.6	.1356-02
16	180.00	.41000	621.00	.9092-01	.1108	.1243	57.24	5.204	.4419	591.0	.1535-02
16	180.00	.41500	622.00	.1087	.1326	.1489	57.06	6.205	.4436	593.2	.2274-02
16	180.00	.42000	624.00	.1512	.1844	.2071	57.04	8.628	.4437	593.4	.2580-02
16	180.00	.42500	625.00	.1716	.2092	.2349	57.11	9.786	.4438	593.6	.3862-02
16	180.00	.43000	626.00	.2569	.3131	.3516	57.14	14.67	.4432	592.7	.5357-02
16	180.00	.44000	627.00	.3563	.4343	.4876	57.18	20.36	.4428	592.2	.5547-02
16	180.00	.45000	628.00	.3691	.4497	.5049	57.21	17.34	.4422	591.4	.4559-02
16	180.00	.45500	629.00	.3032	.3694	.4147	57.21	13.33	.4425	591.8	.3501-02
16	180.00	.46000	630.00	.2330	.2838	.3186	57.30	6.213	.4420	591.1	.1629-02
16	180.00	.46500	631.00	.1084	.1321	.1482	57.42	3.350	.4413	588.7	.8763-03
16	180.00	.47000	632.00	.5834-01	.7103-01	.7970-01	57.42	7.320	.4402	587.2	.1065-02
16	180.00	.48000	633.00	.7092-01	.8631-01	.9681-01	57.54	4.081	.4391	584.2	.1901-02
16	180.00	.49000	634.00	.1267	.1540	.1727	57.78	6.365	.4368	581.3	.1645-02
16	180.00	.50000	635.00	.1037	.1333	.1494	58.00	7.247	.4347	580.0	.1659-02
16	180.00	.50500	636.00	.1664	.1539	.1727	57.35	6.797	.4409	589.6	.1782-02
16	180.00	.51000	637.00	.1186	.1444	.1621	57.32	4.275	.4412	585.7	.1113-02
16	180.00	.51500	638.00	.7414-01	.9018-01	.1011	57.65	4.063	.4379	581.3	.1030-02
16	180.00	.52000	639.00	.7005-01	.8510-01	.9534-01	58.01	3.975	.4347	584.6	.1033-02
16	180.00	.52500	640.00	.6983-01	.8370-01	.9383-01	57.75	3.932	.4371	584.5	.1022-02
16	180.00	.53000	641.00	.6909-01	.8280-01	.9282-01	57.73	4.498	.4372	584.8	.1169-02
16	180.00	.53500	642.00	.7791-01	.9475-01	.1062	57.73	4.751	.4373	584.8	.1235-02
16	180.00	.54000	643.00	.8229-01	.1001	.1122	57.73	4.890	.4371	584.6	.1270-02
16	180.00	.54500	644.00	.8467-01	.1030	.1154	57.75	5.441	.4360	583.1	.1410-02
16	180.00	.55000	645.00	.9404-01	.1143	.1281	57.86				

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AVES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

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(R000F02)

RUN NUMBER	PHI	X/L	TC NO	M/HREF R=1.0	M/HREF R=0.9	M/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/MHT	TH DEG. R	STN NO R=0.9
16	180.00	.90000	646.00	.9823-01	.1193	.1336	58.08	5.735	.4340	580.4	1472-02
16	180.00	.92600	648.00	.3648	.4433	.4967	57.96	21.14	.4351	581.9	5470-02
16	180.00	.95000	649.00	.2012-01	.2447-01	.2744-01	57.63	1.161	.4377	585.4	3019-03
16	191.25	.95000	650.00	.3007-01	.3850-01	.4331-01	57.38	1.819	.4406	589.3	4761-03
16	191.25	.95000	651.00	.3007-01	.3662-01	.4109-01	57.37	1.725	.4405	589.3	4518-03
16	191.25	.97000	652.00	.5461-01	.6650-01	.7461-01	57.39	3.134	.4405	589.1	8203-03
16	191.25	.97500	653.00	.5447-01	.6631-01	.7440-01	57.42	3.127	.4402	588.7	8182-03
16	191.25	.98000	654.00	.5354-01	.6520-01	.7315-01	57.39	3.073	.4404	589.0	8343-03
16	191.25	.98500	655.00	.6221-01	.7574-01	.8498-01	57.42	3.572	.4402	588.7	9344-03
16	191.25	.99000	656.00	.6927-01	.8433-01	.9461-01	57.44	3.979	.4400	588.4	1040-02
16	191.25	.99500	657.00	.7621-01	.9280-01	.1041	57.36	4.371	.4407	589.4	1145-02
16	191.25	.40000	658.00	.7389-01	.8998-01	.1010	57.36	4.239	.4407	589.4	1110-02
16	191.25	.40500	659.00	.7346-01	.8946-01	.1004	57.36	4.214	.4408	589.5	1104-02
16	191.25	.41000	660.00	.7309-01	.8898-01	.9983-01	57.43	4.198	.4401	588.6	1098-02
16	191.25	.41500	661.00	.7585-01	.9237-01	.1037	57.37	4.352	.4407	589.4	1139-02
16	191.25	.42000	662.00	.1092	.1330	.1493	57.36	6.265	.4408	589.5	1641-02
16	191.25	.42500	663.00	.1257	.1531	.1718	57.34	7.208	.4409	589.7	1689-02
16	191.25	.43000	664.00	.1818	.2214	.2485	57.38	10.43	.4406	589.2	2731-02
16	191.25	.44000	665.00	.2007	.2444	.2742	57.40	11.52	.4404	589.0	3015-02
16	191.25	.45000	666.00	.1676	.2040	.2288	57.47	9.630	.4397	589.1	2516-02
16	191.25	.45500	667.00	.1489	.1813	.2034	57.41	8.547	.4403	589.9	2236-02
16	191.25	.46000	668.00	.2084	.2536	.2845	57.50	11.98	.4394	587.7	3129-02
16	191.25	.47000	669.00	.1796	.2185	.2451	57.56	10.34	.4389	587.0	2834-02
16	191.25	.48000	670.00	.1488	.1810	.2030	57.63	8.575	.4382	585.1	2699-02
16	191.25	.49000	671.00	.1238	.1506	.1688	57.78	7.155	.4368	554.2	1761-02
16	191.25	.50000	672.00	.1187	.1442	.1616	58.03	6.591	.4344	581.0	1658-02
16	191.25	.50000	673.00	.8448-01	.1028	.1152	57.66	4.671	.4379	585.6	1288-02
16	191.25	.50000	674.00	.1087	.1321	.1480	57.97	6.302	.4350	591.8	1630-02
16	191.25	.50000	675.00	.8103-01	.9846-01	.1103	58.93	4.775	.4351	584.2	1203-02
16	191.25	.50000	676.00	.8853-01	.1076	.1206	58.89	5.214	.4355	594.7	1314-02
16	191.25	.50000	677.00	.1016	.1235	.1384	59.92	5.987	.4353	584.4	1509-02
16	191.25	.50000	678.00	.9042-01	.1099	.1231	58.91	5.327	.4353	584.5	1342-02
16	191.25	.50000	679.00	.9100-01	.1105	.1238	59.03	5.371	.4342	583.0	1550-02
16	191.25	.50000	680.00	.1024	.1243	.1391	59.20	6.039	.4326	580.9	1518-02
16	191.25	.50000	681.00	.1116	.1354	.1516	59.42	6.632	.4306	578.2	1655-02
16	191.25	.50000	682.00	.2973	.3610	.4044	59.08	17.56	.4338	582.4	1411-02
16	191.25	.50000	683.00	.2066-01	.2512-01	.2817-01	58.68	1.212	.4374	587.4	1059-03
16	191.25	.50000	684.00	.2796-01	.3402-01	.3815-01	58.59	1.638	.4383	588.6	1155-03
16	191.25	.50000	685.00	.2694-01	.3277-01	.3675-01	58.56	1.577	.4385	588.8	1403-03
16	191.25	.50000	686.00	.2706-01	.3293-01	.3693-01	58.57	1.585	.4385	588.8	1403-03
16	191.25	.50000	687.00	.3517-01	.4279-01	.4799-01	58.60	2.061	.4392	588.4	1527-03
16	191.25	.50000	688.00	.6415-01	.7798-01	.8741-01	58.79	3.771	.4355	586.1	1526-03
16	191.25	.50000	689.00	.8470-01	.1030	.1154	58.80	4.980	.4354	586.0	1253-02

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APES 3.5-211 1H48  
ARC3.5-211 1H48 OTS/NIPPLE/P/TRIP(O+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OPRF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HU/HT	TH DEG. R	STN NO R=0.9
17	197.00	.50000	691.00	.2253	.2734	.3060	59.36	13.38	.4311	578.9	.3341-02
17	197.00	.60000	692.00	.9046-01	.1099	.1231	58.99	5.336	.4346	583.6	.1343-02
17	197.00	.70000	693.00	.2221	.2696	.3019	58.18	13.14	.4328	581.1	.3294-02
17	197.00	.80000	694.00	.5880-01	.7140-01	.7997-01	59.12	3.476	.4334	581.9	.8723-03
17	197.00	.87000	695.00	.8954-01	.1089	.1220	59.05	5.293	.4340	582.7	.1330-02
17	197.00	.92600	696.00	.2995	.3635	.4072	59.16	17.72	.4330	581.4	.4443-02
17	197.00	.15000-01	697.00	.9057-01	.1104	.1238	58.48	5.302	.4333	589.9	.1348-02
17	209.80	.30000-01	698.00	.5175	.6284	.7038	59.13	30.60	.4332	581.7	.1678-02
17	209.80	.50000-01	699.00	.4299	.5221	.5849	59.07	25.40	.4338	582.5	.6379-02
17	209.80	.70000-01	700.00	.4173	.5059	.5679	59.02	24.63	.4343	583.1	.6193-02
17	209.80	.10000-00	701.00	.3147	.3821	.4279	59.16	18.62	.4330	581.4	.4659-02
17	209.80	.15000	702.00	.1709	.2074	.2323	59.22	10.12	.4324	580.6	.2535-02
17	209.80	.20000	703.00	.6547-01	.7955-01	.8913-01	58.97	3.861	.4347	583.7	.9718-03
17	209.80	.30000	704.00	.4475-01	.5437-01	.6091-01	58.98	2.639	.4346	583.6	.6542-03
17	209.80	.35000	705.00	.5675-01	.6905-01	.7744-01	58.56	3.323	.4385	588.8	.8434-03
17	209.80	.37500	706.00	.1081	.1314	.1473	58.84	6.362	.4359	595.3	.1605-02
17	209.80	.50000	707.00	.1175	.1425	.1595	59.43	6.981	.4305	578.1	.1741-02
17	209.80	.60000	708.00	.1021	.1239	.1388	59.09	6.031	.4336	582.2	.1514-02
17	209.80	.70000	709.00	.1115	.1358	.1520	59.35	6.643	.4312	579.0	.1659-02
17	209.80	.80000	710.00	.4203-01	.5101-01	.5711-01	59.31	2.493	.4316	579.5	.6233-03
17	209.80	.92600	711.00	.5544-01	.6727-01	.7631-01	59.33	3.283	.4314	579.3	.8220-03
17	209.80	.15000-01	712.00	.1653	.2005	.2245	59.37	9.813	.4310	578.9	.1772-03
17	217.70	.30000-01	713.00	.1191	.1451	.1628	58.37	6.954	.4403	581.3	.1259-02
17	217.70	.35000-01	714.00	.4893	.5942	.6654	59.15	28.94	.4331	581.5	.7259-02
17	217.70	.50000-01	715.00	.3808	.4628	.5185	58.89	22.43	.4355	584.7	.5554-02
17	217.70	.70000-01	716.00	.3478	.4225	.4733	59.01	20.52	.4344	583.2	.5151-02
17	217.70	.10000-00	717.00	.2429	.2948	.3301	59.23	14.39	.4323	580.5	.3202-02
17	217.70	.15000	718.00	.1847	.2241	.2509	59.26	10.94	.4320	580.1	.2139-02
17	217.70	.20000	719.00	.6331-01	.7691-01	.8616-01	59.01	3.735	.4344	583.2	.5356-02
17	217.70	.30000	720.00	.4235-01	.5146-01	.5764-01	59.04	2.501	.4341	582.8	.1687-02
17	217.70	.35000	721.00	.5085-01	.6187-01	.6939-01	58.60	2.993	.4382	588.4	.337-03
17	217.70	.37500	722.00	.5410-01	.6576-01	.7371-01	58.81	3.181	.4363	585.8	.8354-03
17	217.70	.50000	723.00	.1359	.1650	.1859	59.35	8.123	.4312	578.9	.2029-02
17	217.70	.60000	724.00	.8236-01	.1000	.1120	59.08	4.863	.4339	582.4	.1222-02
17	217.70	.70000	725.00	.5650-01	.8106-01	.9075-01	59.32	3.953	.4315	579.9	.3015-03
17	217.70	.80000	726.00	.4191-01	.5087-01	.5695-01	59.28	2.465	.4319	579.9	.6215-03
17	217.70	.87000	727.00	.6952-01	.8443-01	.9448-01	59.47	4.140	.4301	577.5	.1032-02
17	217.70	.92600	728.00	.1454	.1764	.1974	59.45	8.647	.4303	577.7	.2156-02



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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIPI(0+S) EXT TANK

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(R23703)

RUN NUMBER	Phi	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HU/HI	TH DEG. F	STM NO R=0.5
24	.00000	.60000	755.00	.6444-01	.7798-01	.8713-01	61.24	3.946	.4241	582.2	.9707-03
24	.00000	.70000	756.00	.5227-01	.6322-01	.7061-01	61.41	3.210	.4226	580.2	.7870-03
24	.00000	.80000	757.00	.3784-01	.4580-01	.5119-01	61.18	2.315	.4247	583.1	.5702-03
24	.00000	.90000	758.00	.3151-01	.3808-01	.4251-01	61.67	1.944	.4202	576.9	.4742-03
24	.55.000	.22000	759.00	.3511-01	.4244-01	.4738-01	61.59	2.162	.4210	578.0	.5264-03
24	.55.000	.25000	760.00	.2189-01	.2638-01	.2940-01	62.44	1.367	.4133	567.4	.3286-03
24	.55.000	.27000	761.00	.2624-01	.3161-01	.3521-01	62.62	1.643	.4116	565.0	.3938-03
24	.55.000	.30000	762.00	.2886-01	.3485-01	.3988-01	61.74	1.789	.4178	573.6	.4339-03
24	.55.000	.32000	763.00	.4001-01	.5559-01	.6205-01	61.94	2.041	.4196	576.1	.6921-03
24	.55.000	.34000	764.00	.3639-01	.4397-01	.4907-01	61.73	2.246	.4197	576.2	.5474-03
24	.55.000	.36000	765.00	.5527-01	.6678-01	.7454-01	61.74	3.412	.4195	576.1	.8315-03
24	.55.000	.38000	766.00	.7347-01	.9501-01	1.072	61.75	4.977	.4195	576.0	.1155-02
24	.55.000	.40000	767.00	.5604-01	.6771-01	.7559-01	61.71	3.458	.4199	576.5	.6431-03
24	.55.000	.42000	768.00	.3501-01	.4231-01	.4724-01	61.63	2.159	.4206	577.4	.5253-03
24	.55.000	.45000	769.00	.2434-01	.2935-01	.3271-01	62.41	1.519	.4135	557.6	.3556-03
24	.55.000	.48000	770.00	.3460-01	.4170-01	.4646-01	62.55	2.164	.4122	553.9	.5134-03
24	.55.000	.50000	771.00	.3119-01	.3761-01	.4192-01	62.35	1.945	.4143	559.3	.4895-03
24	.55.000	.52000	772.00	.5266-01	.6353-01	.7094-01	61.94	3.262	.4173	573.6	.7918-03
24	.55.000	.54000	773.00	.5254-01	.6347-01	.7084-01	61.77	3.245	.4154	575.7	.7922-03
24	.55.000	.56000	774.00	.6723-01	.8124-01	.9065-01	61.68	4.147	.4201	576.7	.1011-02
24	.55.000	.58000	775.00	.8462-01	1.022	1.141	61.69	5.219	.4201	576.8	.1272-02
24	.55.000	.60000	776.00	.1019	.1231	.1374	61.66	6.281	.4202	577.0	.1533-02
24	.55.000	.62000	777.00	.1222	.1476	.1648	61.64	7.530	.4205	577.3	.1839-02
24	.55.000	.64000	778.00	.1285	.1554	.1735	61.67	7.929	.4233	577.0	.1955-02
24	.55.000	.66000	779.00	.1371	.1657	.1850	61.67	8.455	.4233	576.9	.2053-02
24	.55.000	.68000	780.00	.1398	.1689	.1886	61.67	8.621	.4232	576.9	.2133-02
24	.55.000	.70000	781.00	.1379	.1657	.1861	61.65	8.505	.4233	577.0	.2173-02
24	.55.000	.72000	782.00	.1298	.1537	.1738	61.65	7.943	.4203	577.0	.2173-02
24	.55.000	.74000	783.00	.1164	.1405	.1570	61.67	7.177	.4202	576.9	.1931-02
24	.55.000	.76000	784.00	.9519-01	.1150	.1264	61.73	5.876	.4197	576.2	.1429-02
24	.55.000	.78000	785.00	.8451-01	.1047	.1168	61.69	5.343	.4201	576.7	.1302-02
24	.55.000	.80000	786.00	.7324-01	.8951-01	.9880-01	61.69	4.518	.4201	576.7	.1112-02
24	.55.000	.82000	787.00	.5195-01	.6266-01	.6995-01	61.65	3.197	.4204	577.1	.1332-03
24	.55.000	.84000	788.00	.4202-01	.5079-01	.5570-01	61.61	2.583	.4200	577.6	.6322-03
24	.55.000	.86000	789.00	.6323-02	.8304-02	.9270-02	61.70	4.240	.4200	576.5	.1032-03
24	.55.000	.88000	790.00	.3327-02	.4757-02	.5319-02	60.94	2.393	.4209	586.1	.5282-03
24	.55.000	.90000	791.00	.1632-01	.1855-01	.2073-01	61.19	1.9375	.4246	583.0	.3239-03
24	.55.000	.92000	792.00	.2639-01	.3197-01	.3575-01	61.83	1.605	.4279	587.4	.5574-03
24	.55.000	.94000	793.00	.4834-01	.5917-01	.6507-01	61.54	3.012	.4214	580.5	.7367-03
24	.55.000	.96000	794.00	.4117-01	.4950-01	.5525-01	62.64	2.579	.4114	584.8	.5118-03
24	.55.000	.98000	795.00	.5227-01	.6954-01	.7695-01	62.40	3.573	.4114	587.6	.6239-03
24	.55.000	.00000	796.00	.1059	.1277	.1425	61.97	6.556	.4175	573.2	.1520-02
24	.55.000	.02000	797.00	.1907	.2303	.2571	61.80	11.78	.4191	575.3	.2223-02

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(RNF03)

ARC3.5-2111H481OTS/NIPPLE/P/TRIP(0.5) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H4/HT	TN DEG. R	STN NO R=0.9
24	78.000	32000	798.00	.2189	.2644	.2952	61.70	13.50	.4200	576.5	.3293-02
24	78.000	32500	799.00	.2111	.2551	.2847	61.68	13.02	.4202	576.9	.3176-02
24	78.000	33000	800.00	.2067	.2498	.2789	61.65	12.74	.4205	577.2	.3110-02
24	78.000	33500	801.00	.2081	.2515	.2808	61.61	12.82	.4203	577.7	.3131-02
24	78.000	34000	802.00	.2178	.2633	.2939	61.62	13.42	.4207	577.5	.3278-02
24	78.000	34500	803.00	.2043	.2469	.2756	61.62	12.59	.4207	577.5	.3074-02
24	78.000	35000	804.00	.2036	.2461	.2748	61.61	12.55	.4207	577.6	.3064-02
24	78.000	35500	805.00	.1870	.2260	.2523	61.61	11.52	.4208	577.6	.2814-02
24	78.000	36000	806.00	.1534	.1853	.2069	61.62	9.450	.4207	577.5	.2308-02
24	78.000	36500	807.00	.1410	.1703	.1901	61.77	8.710	.4193	575.6	.2121-02
24	78.000	37000	808.00	.1208	.1461	.1631	61.59	7.443	.4209	577.9	.1818-02
24	78.000	37500	809.00	.1038	.1255	.1402	61.56	6.392	.4212	578.3	.1563-02
24	78.000	38000	810.00	.8050-01	.9732-01	.1087	61.56	4.956	.4212	578.3	.1212-02
24	78.000	39000	811.00	.5001-01	.6046-01	.6752-01	61.54	3.078	.4215	578.6	.7528-03
24	78.000	40000	812.00	.3409-01	.4122-01	.4603-01	61.48	2.096	.4219	579.3	.5132-03
26	90.000	40000-01	985.00	.4121	.5331	.5943	62.44	26.04	.4142	568.2	.6619-02
26	90.000	50000-01	986.00	.4187	.5053	.5636	62.18	26.04	.4166	571.4	.6272-02
26	90.000	60000-01	987.00	.3732	.4506	.5028	62.00	23.13	.4183	573.7	.5593-02
26	90.000	70000-01	988.00	.3518	.4249	.4742	61.91	21.78	.4191	574.9	.5273-02
26	90.000	80000-01	989.00	.3857	.4660	.5201	61.85	23.85	.4196	575.6	.5783-02
26	90.000	90000-01	990.00	.2549	.3080	.3439	61.75	15.74	.4205	576.8	.3823-02
26	90.000	100000-00	991.00	.1286	.1555	.1738	61.43	7.897	.4235	580.8	.1930-02
24	90.000	20100	813.00	.4376-01	.5284-01	.5897-01	61.86	2.707	.4185	574.5	.6580-03
24	90.000	24000	814.00	.3727-01	.4498-01	.5017-01	62.05	2.312	.4168	572.2	.5602-03
24	90.000	25000	815.00	.3083-01	.3714-01	.4138-01	62.62	1.931	.4116	565.1	.4627-03
24	90.000	27000	816.00	.4379-01	.5274-01	.5874-01	62.75	2.748	.4104	563.4	.6570-03
24	90.000	29000	817.00	.1472	.1775	.1978	62.41	9.189	.4135	567.6	.2211-02
24	90.000	30000	818.00	.3364	.4060	.4529	62.06	20.88	.4167	572.1	.5056-02
24	90.000	31000	819.00	.3420	.4130	.4608	61.93	21.18	.4179	573.7	.5143-02
24	90.000	32000	820.00	.3071	.3709	.4139	61.84	18.99	.4187	574.8	.4619-02
24	90.000	32500	821.00	.3032	.3662	.4087	61.78	18.73	.4193	575.6	.4560-02
24	90.000	33000	822.00	.3432	.4146	.4627	61.78	21.20	.4193	575.6	.5162-02
24	90.000	34000	824.00	.3807	.4600	.5134	61.75	23.51	.4195	575.9	.5727-02
24	90.000	34500	825.00	.4905	.5926	.6614	61.76	30.30	.4194	575.8	.7379-02
24	90.000	35000	826.00	.5997	.7245	.8087	61.74	37.03	.4196	576.0	.9021-02
25	90.000	36000	828.00	.4019	.4888	.5481	58.73	23.60	.4376	591.0	.6024-02
25	90.000	36500	829.00	.2158	.2625	.2943	58.70	12.67	.4378	591.4	.3235-02
25	90.000	37000	830.00	.1382	.1682	.1886	58.66	8.108	.4382	591.9	.2072-02
25	90.000	37500	831.00	.9910-01	.1206	.1352	58.60	5.807	.4387	592.6	.1486-02
25	90.000	38000	832.00	.6208-01	.7554-01	.8473-01	58.60	3.638	.4387	592.6	.9309-03
25	90.000	39000	833.00	.4343-01	.5285-01	.5928-01	58.56	2.543	.4391	593.1	.6512-03
25	90.000	40000	834.00	.7736-01	.9416-01	.1056	58.52	4.527	.4395	593.7	.1160-02
25	90.000	50000	835.00	.2915-01	.3546-01	.3976-01	58.71	1.711	.4377	591.2	.4369-03



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AMES 3.5-211 1H48

PAGE 103

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

(R02F031)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/HT	TW DEG. R	STN NO R=0.9
25	90.000	.60000	836.00	.3463-01	.4230-01	.4757-01	57.52	1.992	.4488	606.2	.5209-03
25	90.000	.70000	837.00	.6483-01	.7905-01	.8880-01	58.00	3.760	.4443	600.2	.9738-03
25	90.000	.80000	938.00	.8636-01	.1055	.1186	57.62	4.976	.4479	605.0	.1299-02
25	90.000	.90000	839.00	.8798-01	.1070	.1199	58.86	5.178	.4364	589.4	.1318-02
25	112.50	.23000	840.00	.4906-01	.5954-01	.6685-01	59.36	2.912	.4317	583.2	.7339-03
25	112.50	.25000	841.00	.3763-01	.4552-01	.5085-01	60.32	2.270	.4228	571.1	.5614-03
25	112.50	.30000	843.00	.7722-01	.9356-01	.1046	59.80	4.618	.4276	577.6	.1154-02
25	112.50	.33000	844.00	.1958	.2375	.2659	59.45	11.64	.4308	581.9	.2928-02
25	112.50	.35000	845.00	.2608	.3164	.3542	59.40	15.49	.4313	582.6	.3900-02
25	112.50	.37000	846.00	.1897	.2302	.2578	59.38	11.27	.4315	582.8	.2838-02
25	112.50	.40000	847.00	.8810-01	.1069	.1197	59.37	5.231	.4316	583.0	.1318-02
25	112.50	.45000	848.00	.6072-01	.7370-01	.8252-01	59.31	3.601	.4322	583.8	.9085-03
25	112.50	.50000	849.00	.4975-01	.6032-01	.6749-01	59.63	2.966	.4292	579.8	.7437-03
25	112.50	.55000	850.00	.5438-01	.6590-01	.7370-01	59.77	3.250	.4279	578.0	.8125-03
25	112.50	.60000	851.00	.7233-01	.8794-01	.9859-01	58.60	4.253	.4369	590.1	.1084-02
25	112.50	.65000	852.00	.8932-01	.1086	.1218	58.70	5.243	.4378	591.4	.1339-02
25	112.50	.70000	853.00	.1149	.1395	.1563	59.13	6.793	.4339	586.0	.1720-02
25	112.50	.75000	854.00	.9852-01	.1194	.1336	59.71	5.882	.4285	578.7	.1472-02
25	112.50	.80000	855.00	.9218-01	.1120	.1256	58.90	5.430	.4360	588.9	.1381-02
25	112.50	.90000	856.00	.1185	.1438	.1609	59.45	7.045	.4309	582.0	.1772-02
25	125.40	.84000	857.00	.9569-01	.1161	.1300	59.31	5.675	.4322	583.8	.1432-02
25	125.40	.85000	858.00	.9201-01	.1117	.1251	59.28	5.454	.4324	584.1	.1377-02
25	125.40	.86000	859.00	.9713-01	.1179	.1321	59.24	5.753	.4329	584.7	.1453-02
25	125.40	.87000	860.00	.7899-01	.9589-01	.1074	59.26	4.681	.4326	584.4	.1182-02
25	125.40	.88000	861.00	.7218-01	.8762-01	.9812-01	59.26	4.278	.4326	584.3	.1080-02
25	125.40	.89000	862.00	.8944-01	.1086	.1216	59.30	5.304	.4322	583.8	.1338-02
25	125.40	.90000	863.00	.9983-01	.1211	.1355	59.48	5.937	.4306	581.7	.1493-02
25	125.40	.91000	864.00	.1056	.1280	.1432	59.73	6.310	.4283	578.5	.1579-02
25	125.40	.92600	865.00	.1450	.1760	.1970	59.41	8.616	.4313	582.5	.2169-02
25	125.40	.98000	866.00	.7950-01	.9647-01	.1080	59.38	4.721	.4315	582.9	.1189-02
25	129.30	.81000	867.00	.7154-01	.8682-01	.9720-01	59.36	4.247	.4317	583.2	.1070-02
25	129.30	.82000	868.00	.6649-01	.8067-01	.9029-01	59.44	3.953	.4309	582.1	.9945-03
25	129.30	.83000	869.00	.8514-01	.1033	.1156	59.49	5.065	.4305	581.4	.1273-02
25	135.00	.40000-01	870.00	.5376	.6505	.7269	60.20	32.36	.4239	572.6	.8022-02
25	135.00	.50000-01	871.00	.4904	.5941	.6642	59.89	29.37	.4268	576.4	.7325-02
25	135.00	.60000-01	872.00	.4428	.5366	.6002	59.75	26.45	.4281	578.2	.6616-02
25	135.00	.70000-01	873.00	.4277	.5184	.5800	59.70	25.54	.4285	578.8	.6392-02
25	135.00	.80000-01	874.00	.3766	.4565	.5106	59.67	22.48	.4286	578.9	.5628-02
25	135.00	.90000-00	875.00	.2930	.3552	.3974	59.67	17.48	.4288	579.3	.4379-02
25	135.00	.10000-00	876.00	.1727	.2095	.2345	59.48	10.27	.4305	581.6	.2583-02
25	135.00	.20000	877.00	.9213-01	.1118	.1252	59.36	5.469	.4317	583.1	.1378-02
25	135.00	.30000	878.00	.8097-01	.9818-01	.1099	59.60	4.826	.4295	580.1	.1210-02
25	135.00	.40000	879.00	.6188-01	.7503-01	.8396-01	59.57	3.686	.4297	580.5	.9251-03

DATE 05 MAR 76

AVES 3.5-211 1M48

ARC3.5-21111M48OTS/NIPPLE/P/TRIP(10+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OFEF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/MT	TM DEG. R	STN NO R=0.9
25	135.00	50000	880.00	.1560	.1889	.2111	60.08	9.375	.4250	574.1	.2329-02
25	135.00	55000	881.00	.1355	.1840	.1832	60.24	8.164	.4235	572.1	.2022-02
25	135.00	60000	882.00	.9153-01	.1110	.1242	59.54	5.449	.4301	580.9	.1359-02
25	135.00	65000	883.00	.7840-01	.9506-01	.1064	59.63	4.675	.4292	579.7	.1172-02
25	135.00	70000	884.00	.7072-01	.8571-01	.9587-01	59.72	4.223	.4284	578.6	.1057-02
25	135.00	75000	885.00	.8151-01	.9868-01	.1103	60.04	4.004	.4254	574.6	.1217-02
25	135.00	80000	886.00	.6724-01	.8154-01	.9125-01	59.55	5.813	.4299	580.7	.1005-02
25	135.00	85000	887.00	.9755-01	.1183	.1324	59.59	5.813	.4296	580.2	.1458-02
25	135.00	85000	888.00	.8186-01	.9927-01	.1111	59.56	5.862	.4297	580.7	.1224-02
25	135.00	86000	889.00	.9839-01	.1193	.1335	59.57	4.501	.4304	581.3	.1471-02
25	135.00	87000	890.00	.7564-01	.9175-01	.1027	59.50	4.501	.4300	580.8	.1184-02
25	135.00	88000	891.00	.7918-01	.9603-01	.1075	59.55	5.093	.4297	580.4	.1278-02
25	135.00	89000	892.00	.8548-01	.1037	.1160	59.58	5.716	.4282	578.4	.1430-02
25	135.00	90000	893.00	.9568-01	.1160	.1297	59.74	5.266	.4263	575.9	.1312-02
25	135.00	91000	894.00	.8787-01	.1064	.1190	59.94	8.639	.4295	580.2	.2167-02
25	135.00	92000	895.00	.1450	.1758	.1967	59.59	4.179	.4318	583.3	.1054-02
25	135.00	95000	896.00	.7043-01	.8547-01	.9569-01	59.35	4.179	.4318	583.3	.1054-02
25	142.30	42000	897.00	.7984-01	.9679-01	.1083	59.65	9.940	.4290	579.5	.1193-02
25	142.30	43500	898.00	.1664	.2017	.2256	59.74	10.89	.4276	577.5	.2720-02
25	142.30	45000	899.00	.1821	.2206	.2467	59.81	9.594	.4244	573.3	.2381-02
25	142.30	50000	900.00	.1595	.1930	.2157	60.15	5.572	.4282	578.4	.1394-02
25	142.30	50000	901.00	.9328-01	.1130	.1264	59.91	6.167	.4266	576.2	.1537-02
25	142.30	70000	902.00	.1029	.1247	.1394	61.33	19.71	.4244	582.1	.4826-02
25	154.99	93500	913.00	.3214	.3890	.4347	61.48	16.44	.4230	574.9	.4014-02
25	154.99	94500	914.00	.2674	.3235	.3614	61.48	24.42	.4191	574.9	.5915-02
25	157.50	70000-01	918.00	.3946	.4766	.5319	61.90	20.66	.4191	574.8	.5002-02
25	157.50	80000-01	919.00	.3337	.4031	.4498	61.91	17.40	.4214	578.0	.1357-02
25	157.50	10000-00	920.00	.2810	.3394	.3788	61.66	5.576	.4211	577.6	.2018-02
25	157.50	20000	922.00	.9044-01	.1093	.1221	61.68	8.299	.4216	578.2	.1905-02
25	157.50	42000	923.00	.1345	.1626	.1816	61.64	7.826	.4205	576.7	.1889-02
25	157.50	43500	924.00	.1270	.1535	.1714	61.76	7.780	.4224	579.3	.1312-02
25	157.50	45000	925.00	.1260	.1523	.1700	61.55	5.381	.4227	579.8	.1453-02
25	157.50	85000	926.00	.8742-01	.1057	.1181	61.51	5.955	.4229	580.1	.1345-02
25	157.50	85000	927.00	.9681-01	.1171	.1309	61.48	5.510	.4231	580.3	.1497-02
25	157.50	87000	928.00	.8962-01	.1084	.1211	61.47	6.129	.4228	579.9	.1750-02
25	157.50	89000	929.00	.9972-01	.1206	.1348	61.50	7.169	.4216	578.2	.2123-02
25	157.50	89000	930.00	.1166	.1410	.1575	61.50	8.722	.4199	576.0	.2175-02
25	157.50	90000	931.00	.1415	.1711	.1910	61.84	8.965	.4217	578.4	.4626-02
25	157.50	90000	932.00	.1450	.1752	.1956	61.81	18.97	.4223	579.2	.1595-02
25	157.50	92600	933.00	.1082	.1285	.1435	61.56	6.551	.4222	579.1	.1532-02
25	163.12	41500	934.00	.1063	.1265	.1379	61.56	6.284	.4235	580.8	.2332-02
25	163.12	42000	935.00	.1021	.1234	.1379	61.56	6.284	.4235	580.8	.2332-02
25	163.12	43000	937.00	.1554	.1880	.2100	61.43	9.543	.4235	580.8	.2332-02

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AMES 3.5-211 1148

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

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(RABF03)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	ODOT BTU/ F12SEC	H/MHT	TM DEG. R	STN NO R=0.9
26	163.12	.44000	938.00	.2170	.2625	.2933	61.45	13.33	.4233	580.5	.3257-02
26	163.12	.44500	939.00	.2051	.2481	.2770	61.57	12.63	.4222	579.1	.3078-02
26	163.12	.45000	940.00	.1978	.2391	.2670	61.61	12.19	.4218	578.5	.2967-02
26	163.12	.50000	941.00	.1244	.1503	.1677	61.90	7.700	.4191	574.9	.1865-02
26	163.12	.60000	942.00	.9740-01	.1178	.1316	61.57	5.997	.4222	579.0	.1462-02
26	163.12	.70000	943.00	.9707-01	.1174	.1310	61.65	5.984	.4214	578.1	.1456-02
26	163.12	.80000	944.00	.7031-01	.8503-01	.9498-01	61.51	4.325	.4227	579.7	.1055-02
26	168.00	.35000	945.00	.5478-01	.6621-01	.7393-01	61.70	3.380	.4210	577.5	.8217-03
26	168.00	.36000	946.00	.5390-01	.6515-01	.7274-01	61.70	3.326	.4210	577.4	.8084-03
26	168.00	.37000	947.00	.5272-01	.6373-01	.7116-01	61.69	3.253	.4210	577.5	.7900-03
26	168.00	.37500	948.00	.5235-01	.6328-01	.7066-01	61.68	3.229	.4212	577.7	.7853-03
26	168.00	.38500	950.00	.5868-01	.7091-01	.7916-01	61.67	3.626	.4202	576.3	.8800-03
26	168.00	.39000	951.00	.9691-01	.1172	.1308	61.67	5.977	.4213	577.8	.1454-02
26	168.00	.39500	952.00	.9030-01	.1092	.1219	61.65	5.567	.4214	578.0	.1355-02
26	169.00	.40000	953.00	.8096-01	.9789-01	.1093	61.63	4.989	.4217	578.4	.1215-02
26	168.00	.40500	954.00	.8190-01	.9902-01	.1106	61.60	5.045	.4219	578.6	.1229-02
26	168.00	.41000	955.00	.8160-01	.9209-01	.1028	61.68	4.699	.4212	577.7	.1143-02
26	168.00	.41500	956.00	.8902-01	.1077	.1202	61.55	5.479	.4224	573.3	.1336-02
26	168.00	.42000	957.00	.1007	.1218	.1361	61.51	6.196	.4227	579.8	.1512-02
26	168.00	.42500	958.00	.1186	.1434	.1602	61.62	7.311	.4217	578.4	.1780-02
26	168.00	.43000	959.00	.2071	.2505	.2799	61.49	12.74	.4229	580.1	.3109-02
26	168.00	.44000	960.00	.2334	.2823	.3153	61.49	14.35	.4229	580.0	.3502-02
26	168.00	.44500	961.00	.1999	.2417	.2639	61.57	12.31	.4216	579.0	.2999-02
26	168.00	.45000	962.00	.2079	.2513	.2806	61.63	12.81	.4216	578.3	.3119-02
26	168.00	.45500	963.00	.2170	.2623	.2929	61.69	13.38	.4211	577.6	.3255-02
26	168.00	.47000	965.00	.1925	.2327	.2598	61.75	11.89	.4205	576.8	.2888-02
26	168.00	.48000	966.00	.1508	.1823	.2035	61.80	9.322	.4201	576.2	.2262-02
26	168.00	.49000	967.00	.9065-01	.1095	.1222	61.86	5.608	.4195	575.4	.1359-02
26	168.00	.85000	968.00	.8710-01	.1053	.1176	61.63	5.368	.4216	578.3	.1307-02
26	168.00	.86000	969.00	.1057	.1278	.1428	61.60	6.512	.4219	578.7	.1586-02
26	168.00	.88000	970.00	.1002	.1212	.1353	61.59	6.172	.4219	578.7	.1504-02
26	168.00	.89000	972.00	.1490	.1802	.2012	61.64	9.186	.4220	578.9	.1796-02
26	168.00	.90000	973.00	.1612	.1947	.2172	62.00	9.996	.4215	578.2	.2236-02
26	168.00	.91000	974.00	.1571	.1897	.2117	61.94	9.730	.4182	574.6	.2416-02
26	168.00	.95000	976.00	.7868-01	.9519-01	.1063	61.43	4.833	.4188	574.4	.2355-02
26	168.00	.20000-01	982.00	.3512	.4241	.4732	62.00	38.73	.4234	580.8	.1181-02
26	180.00	.25000-01	983.00	.6224	.7511	.8376	62.23	38.73	.4182	573.7	.5263-02
26	180.00	.30000-01	984.00	.6698	.8080	.9010	62.32	41.74	.4162	570.9	.9323-02
22	180.00	.40000-01	600.00	.5715	.6854	.7612	65.12	37.21	.4154	569.8	.1003-01
22	180.00	.50000-01	601.00	.5198	.6238	.6930	64.95	33.76	.3988	555.4	.8627-02
22	180.00	.60000-01	602.00	.4896	.5877	.6530	64.87	31.76	.4005	557.5	.7851-02
22	180.00	.70000-01	603.00	.4383	.5261	.5846	64.86	28.43	.4006	558.4	.7396-02
22	180.00									558.5	.6621-02

DATE 05 MAR 76

ANES 3.5-211 IN48

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(RAN8503)

ARC3.5-211 (IN48)OTS/NIPPLE/P/TRIP(10-S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HA/HT	TH DEG. F	STN NO R=0.9
22	180.00	.80000-01	604.00	.3483	.4180	.4644	64.88	22.63	.4004	558.3	.5261-02
22	180.00	.10000-00	605.00	.2866	.3440	.3823	64.88	18.60	.4005	558.3	.4330-02
22	180.00	.15000	606.00	.1812	.2416	.2416	64.88	11.76	.4003	558.1	.2737-02
22	180.00	.20000	607.00	.9785-01	.1175	.1305	64.84	6.345	.4008	558.8	.1478-02
22	180.00	.21000	608.00	.8068-01	.9686-01	.1076	64.83	5.231	.4009	558.9	.1219-02
22	180.00	.22000	609.00	.7106-01	.8530-01	.9479-01	64.82	4.606	.4009	559.0	.1073-02
22	180.00	.30000	610.00	.6037-01	.7242-01	.8045-01	65.02	3.925	.3992	558.6	.9116-03
22	180.00	.35000	611.00	.5573-01	.6689-01	.7423-01	64.88	3.616	.4004	558.3	.8419-03
22	180.00	.36000	612.00	.5407-01	.6489-01	.7212-01	64.85	3.506	.4007	558.7	.8168-03
22	180.00	.37000	613.00	.5467-01	.6562-01	.7293-01	64.82	3.543	.4010	559.1	.8259-03
22	180.00	.37500	614.00	.5531-01	.6639-01	.7379-01	64.81	3.584	.4011	559.2	.8356-03
22	180.00	.39000	615.00	.5377-01	.6455-01	.7174-01	64.80	3.484	.4012	559.3	.8124-03
22	180.00	.38500	616.00	.6281-01	.7541-01	.8381-01	64.79	4.070	.4012	559.4	.9491-03
22	180.00	.39000	617.00	.9747-01	.1170	.1301	64.75	6.311	.4016	559.9	.1473-02
22	180.00	.39500	618.00	.9353-01	.1123	.1248	64.74	6.055	.4017	560.0	.1413-02
22	180.00	.40000	619.00	.8497-01	.1020	.1134	64.73	5.500	.4018	560.2	.1284-02
22	180.00	.40500	620.00	.8487-01	.1019	.1133	64.72	5.493	.4018	560.3	.1283-02
22	180.00	.41000	621.00	.9325-01	.1120	.1245	64.70	5.033	.4020	560.5	.1409-02
22	180.00	.41500	622.00	.1157	.1390	.1545	64.67	6.033	.4023	560.9	.1749-02
22	180.00	.42500	624.00	.1894	.2275	.2529	64.67	12.25	.4023	560.8	.2863-02
22	180.00	.43000	625.00	.3309	.2774	.3083	64.64	14.93	.4025	561.2	.3490-02
22	180.00	.44000	626.00	.4290	.3998	.4444	64.71	21.55	.4019	560.4	.5032-02
22	180.00	.44500	627.00	.4534	.5150	.5726	64.75	27.78	.4016	559.9	.6482-02
22	180.00	.45000	628.00	.3696	.5443	.6050	64.78	29.37	.4013	559.6	.6851-02
22	180.00	.45500	629.00	.2755	.4437	.4932	64.80	23.95	.4012	559.3	.5584-02
22	180.00	.46000	630.00	.1282	.3307	.3675	64.79	17.85	.4012	559.4	.4162-02
22	180.00	.47000	631.00	.1282	.1539	.1710	64.83	8.311	.4009	558.9	.1937-02
22	180.00	.48000	632.00	.5651-01	.7983-01	.8871-01	64.84	4.312	.4008	558.8	.1005-02
22	180.00	.49000	633.00	.5636-01	.6764-01	.7516-01	64.90	3.658	.4002	558.0	.8513-03
22	180.00	.50000	634.00	.1221	.1465	.1627	65.04	7.941	.3990	556.3	.1844-02
22	180.00	.50000	635.00	.1291	.1547	.1719	65.18	8.412	.3977	554.5	.1948-02
22	180.00	.50000	636.00	.1305	.1566	.1740	64.89	8.468	.4003	558.2	.1971-02
22	180.00	.50000	637.00	.1169	.1402	.1558	64.90	7.584	.4002	558.1	.1765-02
22	180.00	.50000	638.00	.1062	.1274	.1415	65.05	6.906	.3989	556.2	.1603-02
22	180.00	.50000	639.00	.1045	.1253	.1391	65.29	6.825	.3968	553.2	.1577-02
22	180.00	.50000	640.00	.9824-01	.1178	.1309	65.20	6.405	.3976	554.3	.1483-02
22	180.00	.85000	641.00	.9433-01	.1162	.1290	65.25	6.325	.3971	553.7	.1463-02
22	180.00	.86000	642.00	.1082	.1297	.1440	65.23	7.055	.3973	553.9	.1632-02
22	180.00	.87000	643.00	.1124	.1347	.1496	65.23	7.330	.3973	553.9	.1696-02
22	180.00	.88000	644.00	.1274	.1528	.1696	65.25	8.316	.3971	553.6	.1923-02
22	180.00	.89000	645.00	.1465	.1781	.1977	65.30	9.701	.3966	553.0	.2242-02
22	180.00	.90000	646.00	.1542	.1847	.2050	65.44	10.09	.3954	551.3	.2326-02
22	180.00	.92500	648.00	.4826	.5783	.6420	65.39	31.56	.3959	551.9	.7281-02



DATE 05 MAR 76		AMES 3.5-211 1148		ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0+S) EXT TANK						
RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC		
23	197.00	.70000	693.00	.1770	.2125	.2361	65.47	11.59		
23	197.00	.80000	694.00	.8044-01	.9657-01	.1073	65.43	5.263		
23	197.00	.87000	695.00	.1147	.1377	.1531	65.39	7.499		
23	197.00	.92600	696.00	.3599	.4320	.4802	65.44	23.55		
23	209.80	.15000-01	697.00	.1957	.2352	.2617	65.00	12.72		
23	209.80	.30000-01	698.00	.5949	.7138	.7930	65.64	39.05		
23	209.80	.50000-01	699.00	.5944	.7132	.7925	65.63	39.01		
23	209.80	.70000-01	700.00	.5534	.6641	.7378	65.63	36.33		
23	209.80	.10000-00	701.00	.4307	.5166	.5739	65.73	28.31		
23	209.80	.15000	702.00	.2372	.2846	.3161	65.76	15.60		
23	209.80	.20000	703.00	.9366-01	.1124	.1249	65.52	6.137		
23	209.80	.30000	704.00	.5724-01	.6875-01	.7643-01	65.32	3.739		
23	209.80	.35000	705.00	.5496-01	.6603-01	.7343-01	65.18	3.582		
23	209.80	.37500	706.00	.1107	.1329	.1477	65.41	7.240		
23	209.80	.50000	707.00	.1417	.1700	.1889	65.69	9.311		
23	209.80	.60000	708.00	.1136	.1363	.1515	65.54	7.443		
23	209.80	.70000	709.00	.1092	.1311	.1456	65.63	7.159		
23	209.80	.80000	710.00	.5146-01	.6175-01	.6861-01	65.61	3.376		
23	209.80	.90000	711.00	.8177-01	.9812-01	.1090	65.62	5.366		
23	209.80	.92500	712.00	.2026	.2431	.2701	65.60	13.29		
23	217.70	.15000-01	713.00	.2328	.2799	.3114	64.94	15.12		
23	217.70	.30000-01	714.00	.5742	.6889	.7654	65.67	37.71		
23	217.70	.50000-01	715.00	.4951	.5942	.6603	65.55	32.46		
23	217.70	.70000-01	716.00	.5770	.6921	.7688	65.74	27.93		
23	217.70	.10000-00	717.00	.3264	.3913	.4346	65.86	16.27		
23	217.70	.15000	718.00	.2471	.2963	.3291	65.85	16.27		
23	217.70	.20000	719.00	.9303-01	.1116	.1240	65.64	4.535		
23	217.70	.30000	720.00	.6932-01	.3322-01	.9250-01	65.42	6.535		
23	217.70	.35000	721.00	.7834-01	.9410-01	.1046	65.24	5.111		
23	217.70	.37500	722.00	.8195-01	.9840-01	.1094	65.38	5.358		
23	217.70	.50000	723.00	.1759	.2110	.2345	65.61	11.54		
23	217.70	.60000	724.00	.9067-01	.1088	.1210	65.50	5.939		
23	217.70	.70000	725.00	.1056	.1267	.1408	65.58	6.924		
23	217.70	.80000	726.00	.5539-01	.6647-01	.7386-01	65.59	3.633		
23	217.70	.90000	727.00	.8338-01	.1000	.1111	65.75	5.483		
23	217.70	.92500	728.00	.1793	.2150	.2389	65.69	11.78		

DATE 03 MAR 76

AMES 3.5-211 11MB

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(RANGE)

ARC3.5-211(11MB)OTS/NIPPLE/P/TRIP(0.5) EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TI DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
31	5.000	.0000	5.300	5.288	410.5	1266.	308.7	5424	194.4	.2341-03	3622.	.1750-01
32	5.000	.0000	5.300	5.399	410.9	1250.	304.7	5434	191.9	.2376-03	3598.	.1750-01
33	5.000	.0000	5.300	4.332	408.4	1318.	322.2	5381	202.9	.2226-03	3700.	.1750-01
34	5.000	.0000	5.300	5.257	405.2	1260.	307.3	5356	193.5	.2322-03	3614.	.1750-01
35	5.000	.0000	5.300	4.918	404.8	1313.	320.9	5335	202.1	.2215-03	3693.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
32	.00000	.30000-02	730.00	.3798	.4638	.5215	54.44	20.68	.4480	568.9	.5456-02
32	.00000	.10000-01	731.00	.5864-01	.1203	.1351	54.81	5.406	.4443	564.3	.1415-02
32	.00000	.15000-01	732.00	.6756-01	.8232-01	.9242-01	55.00	3.716	.4424	561.9	.9687-03
32	.00000	.25000-01	734.00	.4024	.4896	.5491	55.39	22.29	.4386	556.9	.5763-02
32	.00000	.30000-01	735.00	.6744	.6304	.9200	55.44	37.39	.4381	556.4	.9656-02
32	.00000	.40000-01	737.00	.6083	.7406	.8310	55.22	33.59	.4403	559.1	.8717-02
32	.00000	.45000-01	738.00	.5483	.6677	.7494	55.13	30.23	.4412	560.2	.7858-02
32	.00000	.50000-01	739.00	.4814	.5866	.6586	55.01	26.49	.4423	561.7	.6903-02
32	.00000	.60000-01	740.00	.4624	.5633	.6323	55.05	25.45	.4420	561.2	.6629-02
32	.00000	.80000-01	741.00	.3912	.4766	.5350	55.07	17.01	.4418	561.0	.5609-02
32	.00000	.10000-00	742.00	.3089	.3764	.4225	55.05	17.01	.4419	561.2	.4429-02
32	.00000	.12500	743.00	.2411	.2937	.3298	55.01	13.26	.4424	561.8	.3457-02
32	.00000	.15000	744.00	.1940	.2365	.2656	54.94	10.66	.4430	562.6	.2783-02
32	.00000	.17500	745.00	.1246	.1519	.1707	54.83	6.833	.4441	564.0	.1788-02
32	.00000	.20000	746.00	.9158-01	.1117	.1256	54.66	5.006	.4458	566.1	.1315-02
32	.00000	.21500	747.00	.7861-01	.9596-01	.1079	54.57	4.290	.4467	567.3	.1129-02
32	.00000	.23000	748.00	.6514-01	.7953-01	.8941-01	54.49	3.550	.4474	568.2	.9357-03
32	.00000	.24000	749.00	.6226-01	.7599-01	.8540-01	54.58	3.398	.4466	567.1	.8940-03
32	.00000	.25000	750.00	.4813-01	.5866-01	.6587-01	54.95	2.645	.4429	562.5	.6903-03
32	.00000	.30000	751.00	.5747-01	.7015-01	.7885-01	54.57	3.137	.4466	567.2	.8253-03
33	.00000	.35000	752.00	.5372-01	.6511-01	.7284-01	59.62	3.202	.4287	575.6	.7953-03
33	.00000	.40000	753.00	.5277-01	.6398-01	.7159-01	59.54	3.142	.4294	576.6	.7820-03
33	.00000	.50000	754.00	.5857-01	.7099-01	.7940-01	59.67	3.495	.4281	574.9	.8677-03

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OF POOR QUALITY

DATE 05 MAR 76

AMES 3.5-211 IH48

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(R08F04)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

RUN NUMBER	PHI	X/L	IC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	MM/HT	TM DEG. R	STN NO R=0.9
33	.00000	.60000	755.00	.5298-01	.6431-01	.7800-01	59.23	3.138	.4323	580.4	.7859-03
33	.00000	.70000	756.00	.5112-01	.6202-01	.6942-01	59.35	3.034	.4311	578.9	.7580-03
33	.00000	.80000	757.00	.4314-01	.5237-01	.5884-01	59.19	2.553	.4326	580.9	.6399-03
33	.00000	.90000	758.00	.4150-01	.5030-01	.5627-01	59.63	2.475	.4285	575.4	.6149-03
33	.00000	.20000	759.00	.5748-01	.6971-01	.7802-01	59.45	3.417	.4302	577.7	.8520-03
33	.00000	.25000	760.00	.3994-01	.4832-01	.5399-01	60.15	2.403	.4237	568.9	.5908-03
33	.00000	.27000	761.00	.5629-01	.6806-01	.7602-01	60.32	3.395	.4221	566.8	.8323-03
33	.00000	.30000	762.00	.4898-01	.5934-01	.6635-01	59.77	2.927	.4272	573.7	.7253-03
33	.00000	.32000	763.00	.5688-01	.6895-01	.7713-01	59.62	3.391	.4287	575.6	.8428-03
33	.00000	.34000	764.00	.7846-01	.9512-01	.1064	59.60	4.676	.4289	575.8	.1163-02
33	.00000	.35000	765.00	.6535-01	.7923-01	.8863-01	59.59	3.895	.4289	575.9	.9884-03
33	.00000	.39000	766.00	.1018	.1234	.1381	59.59	6.069	.4289	575.8	.1509-02
33	.00000	.40000	767.00	.1386	.1680	.1880	59.55	8.254	.4293	576.4	.2054-02
33	.00000	.43000	768.00	.5010-01	.6076-01	.6799-01	59.48	2.980	.4300	577.3	.7426-03
33	.00000	.45000	769.00	.3549-01	.4295-01	.4799-01	60.13	2.134	.4239	569.2	.5251-03
33	.00000	.47000	770.00	.5354-01	.6476-01	.7234-01	60.24	3.226	.4228	567.8	.7919-03
33	.00000	.49000	771.00	.4288-01	.5190-01	.5799-01	60.10	2.577	.4242	569.5	.6345-03
33	.00000	.50000	772.00	.5395-01	.6537-01	.7310-01	59.76	3.224	.4274	573.8	.7991-03
33	.00000	.51000	773.00	.7617-01	.9232-01	.1033	59.62	4.541	.4286	575.5	.1128-02
33	.00000	.52000	774.00	.7654-01	.9279-01	.1038	59.56	4.559	.4291	576.2	.1134-02
33	.00000	.53000	775.00	.8372-01	.1015	.1136	59.57	4.987	.4291	576.2	.1241-02
33	.00000	.53000	776.00	.9937-01	.1205	.1348	59.55	5.917	.4293	576.5	.1473-02
33	.00000	.53000	777.00	.1285	.1558	.1743	59.55	7.653	.4292	576.4	.1904-02
33	.00000	.53000	778.00	.1499	.1817	.2033	59.55	8.924	.4293	576.4	.2221-02
33	.00000	.53000	779.00	.1837	.2227	.2491	59.55	10.54	.4293	576.4	.2722-02
33	.00000	.53000	780.00	.2059	.2496	.2793	59.55	12.26	.4293	576.4	.3051-02
33	.00000	.53000	781.00	.2403	.2914	.3260	59.54	14.31	.4294	576.5	.3561-02
33	.00000	.53000	782.00	.2232	.2706	.3027	59.53	13.28	.4294	576.6	.3307-02
33	.00000	.53000	783.00	.1953	.2368	.2650	59.55	11.63	.4293	576.4	.2488-02
33	.00000	.53000	784.00	.1598	.1937	.2167	59.58	9.519	.4290	576.1	.2895-02
33	.00000	.53000	785.00	.1500	.1818	.2035	59.57	8.935	.4291	576.2	.2223-02
33	.00000	.53000	786.00	.1405	.1703	.1906	59.56	8.368	.4292	576.3	.2082-02
33	.00000	.53000	787.00	.1166	.1413	.1582	59.52	6.939	.4295	576.7	.1728-02
33	.00000	.53000	788.00	.9525-01	.1155	.1292	59.49	5.666	.4298	577.2	.1412-02
33	.00000	.53000	789.00	.4775-01	.5789-01	.6476-01	59.59	2.846	.4289	575.8	.7075-03
33	.00000	.53000	790.00	.4457-01	.5414-01	.6055-01	59.01	2.630	.4343	583.1	.6615-03
33	.00000	.53000	791.00	.5375-01	.6526-01	.7308-01	59.17	3.181	.4328	581.1	.7975-03
33	.00000	.53000	792.00	.5847-01	.7104-01	.7959-01	58.94	3.446	.4349	584.0	.8620-03
33	.00000	.53000	793.00	.5024-01	.6092-01	.6817-01	59.48	2.988	.4299	577.2	.7446-03
33	.00000	.53000	794.00	.4731-01	.5721-01	.6389-01	60.31	2.853	.4222	566.9	.6995-03
33	.00000	.53000	795.00	.5448-01	.6592-01	.7366-01	60.13	3.276	.4239	569.2	.8365-03
33	.00000	.53000	796.00	.1037	.1257	.1406	59.78	6.202	.4272	573.6	.1536-02
33	.00000	.53000	797.00	.2014	.2441	.2730	59.65	12.01	.4283	575.1	.2384-02



DATE 05 MAR 76

AMES 3.5-211 1M48

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	K/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	H/M/HT	TM DEG. R	STN NO R-0.9
33	78.000	32000	799.00	.2694	.3266	.3554	59.59	16.05	.4289	575.9	3992-02
33	78.000	32500	799.00	.2801	.3396	.3759	59.56	16.68	.4291	576.2	4151-02
33	78.000	33000	800.00	.2931	.3553	.3975	59.55	17.45	.4293	576.4	4343-02
33	78.000	33500	801.00	.3052	.3700	.4140	59.51	18.16	.4296	576.8	4523-02
33	78.000	34000	802.00	.3145	.3814	.4267	59.53	18.72	.4294	576.6	4661-02
33	78.000	34500	803.00	.2835	.3438	.3846	59.54	14.56	.4294	576.6	4202-02
33	78.000	35000	804.00	.2446	.2965	.3318	59.55	12.47	.4293	576.4	3624-02
33	78.000	35500	805.00	.2095	.2540	.2842	59.53	11.15	.4294	576.6	3105-02
33	78.000	36000	806.00	.2000	.2425	.2713	59.57	9.964	.4291	576.2	2964-02
33	78.000	36500	807.00	.1872	.2270	.2540	59.50	9.201	.4291	577.0	2775-02
33	78.000	37000	808.00	.1675	.2031	.2272	59.48	8.964	.4300	577.3	2293-02
33	78.000	37500	809.00	.1547	.1876	.2100	59.48	8.080	.4299	577.3	2014-02
33	78.000	38000	810.00	.1359	.1648	.1844	59.46	6.177	.4301	578.1	1540-02
33	78.000	38500	811.00	.1039	.1260	.1410	59.41	4.895	.4305	575.6	1222-02
33	78.000	40000	812.00	.8239-01	.9555-01	.1119	58.92	26.34	.4304	578.2	6640-02
35	90.000	40000-01	985.00	.4470	.5422	.6069	58.71	25.39	.4324	579.7	6427-02
35	90.000	50000-01	986.00	.4324	.5249	.5877	58.59	22.34	.4335	580.8	5670-02
35	90.000	60000-01	987.00	.3813	.4631	.5187	58.50	21.32	.4343	582.3	5420-02
35	90.000	70000-01	988.00	.3644	.4427	.4959	58.38	15.38	.4354	585.9	3920-02
35	90.000	10000+00	990.00	.2635	.3202	.3588	58.10	7.952	.4381	574.4	5932-03
35	90.000	15000	991.00	.1369	.1665	.1867	59.71	2.392	.4278	572.7	4941-03
33	90.000	20100	813.00	.4055-01	.4853-01	.5428-01	59.85	1.997	.4265	566.9	4075-03
33	90.000	24000	814.00	.3337-01	.4042-01	.4519-01	60.32	1.662	.4222	565.3	6040-03
33	90.000	25000	815.00	.2756-01	.3333-01	.3722-01	60.44	2.470	.4210	568.8	2151-02
33	90.000	27000	816.00	.4086-01	.4939-01	.5515-01	60.16	8.748	.4236	572.6	4776-02
33	90.000	23000	817.00	.1454	.1760	.1966	59.86	19.31	.4264	573.6	4925-02
33	90.000	30000	818.00	.3225	.3906	.4368	59.77	19.88	.4272	574.4	4448-02
33	90.000	31000	819.00	.3003	.3639	.4070	59.71	17.93	.4278	575.0	4437-02
33	90.000	32000	820.00	.2935	.3630	.4060	59.68	21.96	.4281	574.8	5451-02
33	90.000	32500	821.00	.3630	.4460	.4988	59.64	20.45	.4284	575.2	5081-02
33	90.000	34000	824.00	.3429	.4156	.4649	59.67	24.71	.4282	574.9	6136-02
33	90.000	34500	825.00	.4142	.5020	.5615	59.64	33.07	.4284	575.3	8215-02
33	90.000	35000	826.00	.5545	.6721	.7518	59.64	29.00	.4590	587.8	7923-02
33	90.000	35500	828.00	.5427	.6658	.7509	59.64	16.96	.4589	587.9	4634-02
34	90.000	36000	829.00	.3174	.3894	.4392	53.43	9.999	.4593	587.9	2732-02
34	90.000	36500	830.00	.1871	.2296	.2589	53.40	6.125	.4592	588.2	1675-02
34	90.000	37000	831.00	.1147	.1407	.1587	53.40	3.896	.4593	588.2	1065-02
34	90.000	37500	832.00	.7295-01	.8951-01	.1010	53.40	2.327	.4594	588.4	6365-03
34	90.000	38000	833.00	.4359-01	.5348-01	.6033-01	53.38	2.149	.4594	588.9	5884-03
34	90.000	39000	834.00	.4029-01	.4844-01	.5578-01	53.35	2.024	.4598	588.0	5533-03
34	90.000	40000	835.00	.3790-01	.4649-01	.5244-01	53.42	2.307	.4591	589.5	6439-03
34	90.000	50000	836.00	.4395-01	.5412-01	.6120-01	52.50		.4681		

AVES 3.5-211 1148

ARC3.5-211 1148 10TS/NIPPLE/P/TRIP(O-S) EXT TANK

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	MM/MT	TH DEG. R	STN NO R=0.9
34	90.000	70000	837.00	5500-01	6763-01	7641-01	52.85	2.907	.4646	995.1	.8047-03
34	90.000	80000	838.00	7614-01	9494-01	1.073	52.64	4.060	.4668	997.8	.1129-02
34	90.000	90000	839.00	7604-01	9320-01	1.051	53.64	4.079	.4569	985.1	.1109-02
34	112.50	23000	840.00	2942-01	3601-01	4.055-01	53.97	1.588	.4536	981.0	.4286-03
34	112.50	25000	841.00	2369-01	2891-01	3.249-01	54.68	1.295	.4466	972.4	.3443-03
34	112.50	27000	842.00	1103-01	1344-01	1.509-01	55.05	.6071	.4430	967.4	.1601-03
34	112.50	30000	843.00	5307-01	6488-01	7.299-01	54.29	2.881	.4505	976.9	.7724-03
34	112.50	33000	844.00	1364	1670	1.880	54.05	7.374	.4529	980.1	.1989-02
34	112.50	35000	845.00	1498	1834	2.065	54.01	8.093	.4533	980.5	.2183-02
34	112.50	40000	846.00	9779-01	1197	1.348	54.01	5.281	.4535	980.9	.1425-02
34	112.50	45000	847.00	3019-01	4797-01	5.402-01	53.98	2.116	.4538	981.2	.1884-03
34	112.50	50000	848.00	1293-01	1533-01	1.782-01	53.95	.6975	.4518	977.2	.1972-03
34	112.50	55000	849.00	1355-01	1557-01	1.865-01	54.16	.7337	.4507	986.1	.2061-03
34	112.50	60000	850.00	1416-01	1731-01	1.948-01	54.27	.7686	.4576	986.9	.2983-03
34	112.50	65000	851.00	2048-01	2511-01	2.831-01	53.56	1.097	.4583	982.9	.6794-03
34	112.50	70000	852.00	4655-01	5708-01	6.437-01	53.50	2.490	.4551	977.4	.9005-03
34	112.50	75000	853.00	6177-01	7566-01	9.524-01	53.26	3.325	.4508	983.9	.7851-03
34	112.50	80000	854.00	5394-01	6594-01	7.420-01	54.20	2.541	.4514	978.1	.6894-03
34	112.50	85000	855.00	4727-01	5792-01	6.527-01	53.74	2.738	.4524	979.5	.7354-03
34	112.50	90000	856.00	5031-01	6177-01	6.952-01	54.09	2.749	.4526	979.6	.7432-03
34	125.40	85000	857.00	5082-01	6217-01	6.999-01	54.08	2.418	.4526	980.0	.6512-03
34	125.40	90000	858.00	4471-01	5470-01	6.158-01	54.05	2.012	.4529	980.1	.5424-03
34	125.40	95000	859.00	3723-01	4556-01	5.130-01	54.05	1.717	.4528	980.0	.4629-03
34	125.40	100000	860.00	3178-01	3888-01	4.378-01	54.05	1.761	.4526	980.7	.4747-03
34	125.40	105000	861.00	3259-01	3988-01	4.490-01	54.08	2.088	.4514	981.1	.5625-03
34	125.40	110000	862.00	3662-01	4725-01	5.319-01	54.08	2.551	.4514	982.2	.6852-03
34	125.40	115000	863.00	4706-01	5755-01	6.477-01	54.20	2.185	.4494	979.7	.5844-03
34	125.40	120000	864.00	4017-01	4908-01	5.621-01	54.40	4.105	.4526	979.3	.1106-02
34	125.40	125000	865.00	7592-01	9289-01	10.46	54.08	2.580	.4524	979.4	.6947-03
34	129.30	83000	866.00	4770-01	5835-01	6.569-01	54.10	2.278	.4524	979.4	.6133-03
34	129.30	86000	867.00	4211-01	5152-01	5.800-01	54.20	2.044	.4514	977.6	.5492-03
34	129.30	89000	868.00	3772-01	4613-01	5.191-01	54.24	2.365	.4510	977.6	.6348-03
34	129.30	92000	869.00	3776	4608	5.179	54.73	20.67	.4462	971.4	.5488-02
34	135.00	95000	870.00	3776	4608	5.179	54.48	21.82	.4496	974.6	.5825-02
34	135.00	100000	871.00	4004	4892	5.501	54.36	16.84	.4499	976.2	.4508-02
34	135.00	105000	872.00	3038	3786	4.259	54.36	14.36	.4498	976.1	.3843-02
34	135.00	110000	873.00	2841	3228	3.631	54.36	10.06	.4499	976.2	.2694-02
34	135.00	115000	874.00	1851	2263	2.545	54.21	5.408	.4513	978.0	.1452-02
34	135.00	120000	875.00	9975-01	1220	1.373	54.04	2.467	.4513	980.2	.6651-03
34	135.00	125000	876.00	4566-01	5587-01	6.291-01	54.08	2.506	.4525	979.7	.4745-03
34	135.00	130000	877.00	3258-01	3386-01	4.487-01	54.09	1.762	.4525	979.5	.6748-03
34	135.00	135000	878.00	4633-01	5668-01	6.381-01	54.50	1.861	.4484	974.3	.4955-03
34	135.00	140000	879.00	3414-01	4170-01	4.689-01	54.50				
34	135.00	145000	880.00								

AVES 3.5-211 1M46  
ARC3.5-211(1M48)OTS/NIPPLE/W/TRIPO(S) EXT TANK

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	M/REF R=1.0	M/REF R=0.9	M/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/M/NT	TH DEG. R	STN NO R=0.9
34	135.00	.55000	881.00	.6932-01	.8462-01	.9512-01	54.64	3.788	.4470	572.5	.1008-02
34	135.00	.60000	882.00	.6041-01	.7390-01	.8318-01	54.13	3.270	.4521	579.0	.8798-03
34	135.00	.65000	883.00	.6205-01	.7591-01	.8545-01	54.10	3.357	.4523	579.3	.9037-03
34	135.00	.70000	884.00	.4170-01	.5098-01	.5736-01	54.29	2.264	.4505	577.0	.6070-03
34	135.00	.75000	885.00	.5175-01	.6320-01	.7106-01	54.54	2.823	.4480	573.6	.7526-03
34	135.00	.80000	886.00	.4585-01	.5606-01	.6308-01	54.25	2.487	.4509	577.5	.6574-03
34	135.00	.84000	887.00	.5480-01	.6699-01	.7536-01	54.32	2.977	.4502	576.6	.7976-03
34	135.00	.88000	888.00	.5499-01	.6722-01	.7563-01	54.30	2.986	.4504	576.9	.8004-03
34	135.00	.89000	889.00	.4750-01	.5807-01	.6533-01	54.30	2.579	.4505	576.9	.6914-03
34	135.00	.87000	890.00	.4070-01	.4977-01	.5600-01	54.25	2.208	.4509	577.5	.5925-03
34	135.00	.89000	891.00	.4646-01	.5590-01	.6392-01	54.27	2.521	.4507	577.2	.6763-03
34	135.00	.89000	892.00	.4758-01	.5816-01	.6544-01	54.28	2.583	.4506	577.1	.6925-03
34	135.00	.90000	893.00	.5439-01	.6646-01	.7475-01	54.41	2.959	.4494	577.1	.7913-03
34	135.00	.91000	894.00	.4497-01	.5491-01	.6174-01	54.55	2.453	.4479	573.7	.6539-03
34	135.00	.92600	895.00	.6091-01	.7449-01	.8383-01	54.21	3.302	.4513	578.0	.8668-03
34	135.00	.95000	896.00	.4638-01	.5677-01	.6393-01	53.97	2.503	.4536	581.0	.6758-03
34	142.30	.42000	897.00	.5453-01	.6670-01	.7507-01	54.17	2.954	.4517	578.5	.7540-03
34	142.30	.43500	898.00	.1439	.1279	.1439	54.25	5.676	.4509	577.5	.1523-02
34	142.30	.45000	899.00	.7785-01	.9516-01	.1071	54.32	4.229	.4502	576.6	.1133-02
34	142.30	.50000	900.00	.5212-01	.6354-01	.7155-01	54.56	2.643	.4479	573.6	.7578-03
34	142.30	.60000	901.00	.7699-01	.9412-01	.1059	54.29	4.179	.4505	577.0	.1121-02
34	142.30	.70000	902.00	.5465-01	.6677-01	.7509-01	54.45	2.976	.4489	575.0	.7550-03
35	154.98	.93500	913.00	.1690	.2057	.2307	58.01	9.806	.4389	587.0	.2518-02
35	154.98	.94501	914.00	.1432	.1742	.1953	58.18	8.331	.4374	584.9	.2132-02
35	157.50	.70000-01	918.00	.2565	.2115	.3489	58.57	15.02	.4337	580.0	.3814-02
35	157.50	.80000-01	919.00	.2117	.2571	.2880	58.58	12.40	.4336	579.8	.3148-02
35	157.50	.10000-00	920.00	.1676	.2036	.2280	58.60	9.823	.4334	579.6	.2493-02
35	157.50	.20000	922.00	.3936-01	.4782-01	.5358-01	58.44	2.300	.4348	581.5	.5854-03
35	157.50	.42000	923.00	.1080	.1313	.1473	58.17	6.282	.4374	585.3	.1608-02
35	157.50	.43500	924.00	.1012	.1231	.1381	58.15	5.897	.4376	585.3	.1507-02
35	157.50	.45000	925.00	.8718-01	.1060	.1188	58.25	5.078	.4367	584.0	.1258-02
35	157.50	.85000	926.00	.3422-01	.4163-01	.4669-01	58.09	1.988	.4381	585.9	.5597-03
35	157.50	.86000	927.00	.4035-01	.4910-01	.5507-01	58.05	2.343	.4385	585.9	.6010-03
35	157.50	.87000	928.00	.4801-01	.5842-01	.6552-01	58.03	2.785	.4387	586.7	.7150-03
35	157.50	.88000	929.00	.5816-01	.7077-01	.7937-01	58.03	3.375	.4387	586.7	.8562-03
35	157.50	.89000	930.00	.7491-01	.9112-01	.1022	58.12	4.354	.4379	585.6	.1115-02
35	157.50	.93000	931.00	.8269-01	.1005	.1127	58.32	4.823	.4360	583.1	.1231-02
35	157.50	.91000	932.00	.7717-01	.9372-01	.1050	58.55	4.518	.4339	583.3	.148-02
35	157.50	.92500	933.00	.1145	.1392	.1560	58.27	6.669	.4365	583.8	.1704-02
35	163.12	.41500	934.00	.8187-01	.9957-01	.1116	58.16	4.936	.4375	585.1	.1219-02
35	163.12	.42000	935.00	.8598-01	.1046	.1173	58.11	4.936	.4379	585.7	.1260-02
35	163.12	.43000	937.00	.1057	.1299	.1457	57.99	6.188	.4391	587.2	.1589-02
35	163.12	.44000	938.00	.1257	.1529	.1715	58.02	7.291	.4388	583.9	.1872-02

AMES 3.5-211 1M+8  
ARC3.5-211(1M+8)OTS/NIPPLE/P/TRIP(10+S) EXT TANK

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
35	163.12	44500	939.00	.1255	.1527	.1712	58.13	7.297	.4378	585.5	1859-02
35	163.12	45000	940.00	.1242	.1510	.1693	58.18	7.225	.4373	584.9	1849-02
35	163.12	50000	941.00	.1062	.1290	.1445	58.56	6.219	.4379	585.6	1579-02
35	163.12	60000	942.00	.9573-01	.1164	.1306	58.12	5.564	.4379	585.3	1425-02
35	163.12	70000	943.00	.6177-01	.7508-01	.8416-01	58.30	3.601	.4362	585.4	912-03
35	163.12	80000	944.00	.4508-01	.5483-01	.6148-01	58.14	2.620	.4377	585.4	6711-03
35	168.00	35000	945.00	.4893-01	.5945-01	.6561-01	58.43	2.859	.4350	581.7	1278-03
35	168.00	36000	946.00	.3843-01	.4670-01	.5233-01	58.40	2.244	.4350	582.1	5717-03
35	168.00	37000	947.00	.3598-01	.4373-01	.4900-01	58.37	2.106	.4355	582.5	5353-03
35	168.00	37500	948.00	.3573-01	.4343-01	.4868-01	58.33	2.084	.4359	582.9	5317-03
35	168.00	38000	950.00	.2828-01	.2829-01	.3170-01	58.41	1.360	.4352	582.0	5463-03
35	168.00	39000	951.00	.3690-01	.4729-01	.5301-01	58.29	2.268	.4363	583.5	5790-03
35	168.00	39500	952.00	.4413-01	.5366-01	.6015-01	58.26	2.571	.4365	583.3	5569-03
35	168.00	40000	953.00	.5037-01	.6125-01	.6867-01	58.22	2.933	.4369	584.3	5459-03
35	168.00	40500	954.00	.6017-01	.7317-01	.8203-01	58.21	3.502	.4371	584.5	5327-03
35	168.00	41000	955.00	.6021-01	.7319-01	.8204-01	58.31	3.511	.4351	583.3	5261-03
35	168.00	41500	956.00	.8487-01	.1032	.1157	58.15	4.935	.4376	585.3	5264-02
35	168.00	42000	957.00	.9555-01	.1162	.1303	58.11	5.552	.4380	585.8	5423-02
35	168.00	42500	958.00	.9597-01	.1179	.1322	58.21	5.645	.4371	584.5	1444-02
35	168.00	43000	959.00	.1449	.1743	.1977	58.11	8.423	.4379	585.7	2156-02
35	168.00	43500	960.00	.1526	.1858	.2081	58.12	8.859	.4379	585.6	2272-02
35	168.00	44000	961.00	.1465	.1782	.1998	58.19	9.528	.4372	584.7	2181-02
35	168.00	44500	962.00	.1772	.2155	.2339	58.24	9.567	.4358	584.1	2242-02
35	168.00	45000	963.00	.1793	.2180	.2443	58.33	10.46	.4359	583.0	2239-02
35	168.00	45500	964.00	.1586	.1927	.2160	58.37	9.257	.4355	582.4	2339-02
35	168.00	46000	965.00	.1306	.1587	.1779	58.43	7.633	.4350	581.7	1543-02
35	168.00	46500	966.00	.7943-01	.3648-01	.1081	58.52	4.648	.4341	580.6	1121-02
35	168.00	47000	967.00	.3139-01	.3830-01	.4361-01	58.24	1.863	.4368	584.2	1121-02
35	168.00	47500	968.00	.3556-01	.4324-01	.4848-01	58.22	2.070	.4370	584.4	1257-03
35	168.00	48000	969.00	.5198-01	.6320-01	.7085-01	58.23	3.027	.4369	584.2	1257-03
35	168.00	48500	970.00	.6924-01	.8492-01	.9520-01	58.24	4.068	.4368	584.1	1140-02
35	168.00	49000	971.00	.9335-01	.1137	.1274	58.32	5.456	.4350	583.1	1352-02
35	168.00	49500	972.00	.9330-01	.1213	.1359	58.54	5.848	.4339	580.3	1352-02
35	168.00	50000	973.00	.8573-01	.1041	.1165	58.73	5.035	.4322	578.0	1174-02
35	168.00	50500	974.00	.4930-01	.6066-01	.6793-01	58.29	2.908	.4363	583.5	1258-03
35	168.00	51000	975.00	.9932-01	.1213	.1358	58.65	5.860	.4329	579.0	1352-02
35	168.00	51500	976.00	.1776	.2155	.2413	58.82	10.45	.4314	576.9	2239-02
35	168.00	52000	977.00	.3485	.4229	.4732	58.91	20.54	.4305	575.7	5172-02
35	168.00	52500	978.00	.3427	.4171	.4678	56.08	19.22	.4292	565.1	5172-02
35	168.00	53000	979.00	.3504	.4267	.4788	55.91	19.59	.4293	557.3	5172-02
35	168.00	53500	980.00	.3020	.3678	.4129	55.83	16.86	.4416	558.3	5172-02
35	168.00	54000	981.00	.2605	.3174	.3562	55.81	14.54	.4418	558.5	5172-02

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APES 3.5-211 1M-8

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(RMBF04)

ARC3.5-211(1M-8)OTS/NIPPLE/P/TRIP(O-S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QOOT BTU/ F12SEC	HN/HT	TM DEG. R	STN NO R=0.9
31	180.00	.80000-01	604.00	.2463	.3000	.3367	55.83	13.75	.4416	568.2	.3588-02
31	180.00	.10000+00	605.00	.1614	.1956	.2206	55.85	9.013	.4415	568.1	.2333-02
31	180.00	.15000	606.00	.8915-01	.1086	.1218	55.90	4.984	.4409	567.3	.1289-02
31	180.00	.20000	607.00	.4012-01	.4887-01	.5485-01	55.87	2.242	.4412	567.7	.5800-03
31	180.00	.21000	608.00	.3143-01	.3828-01	.4295-01	55.90	1.757	.4410	567.4	.4543-03
31	180.00	.22000	609.00	.2629-01	.3201-01	.3593-01	55.92	1.470	.4408	567.2	.3600-03
31	180.00	.30000	610.00	.2307-01	.2807-01	.3147-01	56.20	1.297	.4409	563.6	.3332-03
31	180.00	.35000	611.00	.4131-01	.5031-01	.5646-01	55.90	2.309	.4417	567.3	.5971-03
31	180.00	.35000	612.00	.3451-01	.4203-01	.4718-01	55.82	1.926	.4417	568.3	.4589-03
31	180.00	.37000	613.00	.3623-01	.4414-01	.4956-01	55.78	2.021	.4421	569.9	.5239-03
31	180.00	.37500	614.00	.3762-01	.4584-01	.5147-01	55.75	2.097	.4424	569.2	.5441-03
31	180.00	.38000	615.00	.3927-01	.4785-01	.5372-01	55.73	2.188	.4428	569.5	.5679-03
31	180.00	.39500	616.00	.4243-01	.5171-01	.5806-01	55.70	2.354	.4434	569.8	.6139-03
31	180.00	.39500	617.00	.4761-01	.5903-01	.6517-01	55.65	2.649	.4434	570.5	.6587-03
31	180.00	.39500	618.00	.5140-01	.6266-01	.7037-01	55.62	3.054	.4436	570.9	.7543-03
31	180.00	.40000	619.00	.5490-01	.6593-01	.7516-01	55.59	3.625	.4439	571.2	.8434-03
31	180.00	.40500	620.00	.6520-01	.7949-01	.8928-01	55.59	4.711	.4427	569.7	.1223-02
31	180.00	.41000	621.00	.8456-01	.1030	.1157	55.71	5.743	.4445	572.0	.1497-02
31	180.00	.41500	622.00	.1034	.1261	.1417	55.53	7.279	.4446	572.1	.1638-02
31	180.00	.42500	624.00	.1311	.1599	.1796	55.52	8.038	.4442	571.6	.2094-02
31	180.00	.43000	625.00	.1447	.1764	.1982	55.56	13.49	.4442	571.3	.3514-02
31	180.00	.44000	626.00	.2428	.2881	.3326	55.56	17.52	.4440	571.0	.4551-02
31	180.00	.45000	628.00	.3195	.3835	.4317	55.61	17.77	.4437	571.0	.4622-02
31	180.00	.45500	629.00	.2728	.3326	.3735	55.64	15.18	.4435	570.7	.3547-02
31	180.00	.46000	630.00	.2187	.2666	.2994	55.75	12.17	.4435	570.7	.3184-02
31	180.00	.48000	632.00	.9536-01	.1162	.1305	55.84	5.316	.4415	569.3	.1379-02
31	180.00	.49000	633.00	.9453-01	.1152	.1292	55.78	5.278	.4415	569.1	.1257-02
31	180.00	.50000	634.00	.1621	.1973	.2213	55.03	9.080	.4397	565.6	.2342-02
31	180.00	.50000	635.00	.1442	.1755	.1968	56.19	8.105	.4391	563.7	.2093-02
31	180.00	.50000	636.00	.1080	.1316	.1478	55.70	6.014	.4429	569.9	.1582-02
31	180.00	.50000	637.00	.1031	.1255	.1410	55.67	5.737	.4431	570.2	.1491-02
31	180.00	.6050-01	639.00	.6050-01	.7367-01	.8267-01	55.92	3.393	.4377	567.1	.9745-03
31	180.00	.5073-01	639.00	.5073-01	.6171-01	.6919-01	56.23	2.853	.4377	563.3	.7225-03
31	180.00	.5373-01	640.00	.5373-01	.6540-01	.7337-01	56.03	3.011	.4396	565.7	.7547-03
31	180.00	.5261-01	641.00	.5261-01	.6403-01	.7182-01	56.08	2.950	.4392	565.2	.7501-03
31	180.00	.5291-01	642.00	.5291-01	.6440-01	.7224-01	56.06	2.955	.4393	565.3	.7547-03
31	180.00	.5483-01	643.00	.5483-01	.6679-01	.7492-01	56.07	3.077	.4393	565.3	.7547-03
31	180.00	.7114-01	644.00	.7114-01	.8558-01	.9711-01	56.09	3.930	.4391	565.9	.7225-03
31	180.00	.8918-01	645.00	.8918-01	.1085	.1217	56.18	5.018	.4392	563.9	.1228-02
31	180.00	.9545-01	646.00	.9545-01	.1039	.1164	56.38	4.818	.4392	561.4	.1289-02
31	180.00	.1935	648.00	.1935	.2425	.2719	56.34	11.24	.4367	561.9	.2073-02
31	180.00	.1323-01	649.00	.1323-01	.1516-01	.1812-01	56.26	.7477	.4375	562.9	.1313-03

AMES 3.5-211 1M42  
ARC3.5-211 (1M4810TS/NIPPLE/P/RIPI(O+S) EXT TANK

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
31	191.25	35000	650.00	.4149-01	.5052-01	.5670-01	55.90	2.319	.4409	567.3	.5997-03
31	191.25	36000	651.00	.4300-01	.5236-01	.5876-01	55.90	2.403	.4409	567.4	.6215-03
31	191.25	37000	652.00	.4289-01	.5223-01	.5862-01	55.90	2.397	.4410	567.4	.6200-03
31	191.25	37500	653.00	.4663-01	.5678-01	.6371-01	55.92	2.607	.4407	567.1	.6739-03
31	191.25	38000	654.00	.5037-01	.6134-01	.6884-01	55.91	2.816	.4409	567.3	.7281-03
31	191.25	38500	655.00	.6521-01	.7941-01	.8912-01	55.90	3.645	.4409	567.4	.9426-03
31	191.25	39000	656.00	.7462-01	.9087-01	.1020	55.93	4.173	.4407	567.1	.1079-02
31	191.25	39500	657.00	.8496-01	.1035	.1161	55.85	4.745	.4414	568.0	.1228-02
31	191.25	40000	658.00	.8952-01	.1091	.1254	55.81	4.996	.4418	568.5	.1294-02
31	191.25	40500	659.00	.9174-01	.1118	.1254	55.82	5.121	.4417	568.4	.1326-02
31	191.25	41000	660.00	.9688-01	.1180	.1324	55.88	5.413	.4412	567.7	.1400-02
31	191.25	41500	661.00	.8388-01	.1022	.1147	55.81	4.682	.4418	568.5	.1213-02
31	191.25	42000	662.00	.9739-01	.1186	.1332	55.81	5.435	.4418	568.5	.1408-02
31	191.25	42500	663.00	.1029	.1294	.1408	55.81	5.745	.4418	568.5	.1489-02
31	191.25	43000	664.00	.1248	.1521	.1707	55.82	6.967	.4417	568.4	.1805-02
31	191.25	43500	665.00	.1325	.1614	.1811	55.87	7.404	.4412	567.7	.1916-02
31	191.25	44000	666.00	.1577	.1920	.2155	55.89	8.811	.4411	567.6	.2279-02
31	191.25	44500	667.00	.1499	.1826	.2050	55.85	8.374	.4414	568.0	.2168-02
31	191.25	45000	668.00	.1601	.1950	.2188	55.91	8.953	.4409	567.3	.2315-02
31	191.25	45500	669.00	.1492	.1817	.2039	55.92	8.346	.4407	567.1	.2157-02
31	191.25	46000	670.00	.1341	.1633	.1832	56.08	7.509	.4400	566.2	.1938-02
31	191.25	46500	671.00	.1189	.1447	.1624	56.23	6.668	.4392	565.1	.1718-02
31	191.25	47000	672.00	.1191	.1448	.1624	56.23	6.697	.4377	563.2	.1720-02
31	191.25	47500	673.00	.6902-01	.8403-01	.9428-01	55.98	3.864	.4401	566.4	.9974-03
31	191.25	48000	674.00	.1028	.1251	.1402	56.17	3.818	.4401	563.9	.1484-02
31	191.25	48500	675.00	.6981-01	.8518-01	.9570-01	54.68	3.818	.4456	565.8	.1002-02
32	191.25	49000	676.00	.6100-01	.7443-01	.8364-01	54.67	3.335	.4457	566.0	.8757-03
32	191.25	49500	677.00	.7152-01	.8726-01	.9805-01	54.68	3.911	.4456	565.9	.1027-02
32	191.25	50000	678.00	.7938-01	.9686-01	.1088	54.67	4.340	.4457	566.0	.1140-02
32	191.25	50500	680.00	.8028-01	.9793-01	.1100	54.72	4.393	.4452	565.3	.1152-02
32	191.25	51000	681.00	.8594-01	.1048	.1177	54.81	4.711	.4443	564.2	.1233-02
32	191.25	51500	682.00	.8820-01	.1075	.1207	54.95	4.846	.4430	562.5	.1265-02
32	191.25	52000	683.00	.1929	.2352	.2642	54.80	10.57	.4445	564.4	.2768-02
32	191.25	52500	684.00	.2778-01	.3389-01	.3808-01	54.69	1.519	.4455	565.7	.3987-03
32	191.25	53000	685.00	.2456-01	.3044-01	.3419-01	54.81	1.368	.4444	564.3	.3581-03
32	191.25	53500	686.00	.2454-01	.2992-01	.3361-01	54.81	1.345	.4443	564.3	.3521-03
32	191.25	54000	687.00	.4304-01	.5248-01	.5895-01	54.80	2.359	.4444	564.3	.6176-03
32	191.25	54500	688.00	.5532-01	.6747-01	.7578-01	54.79	3.031	.4445	564.5	.7938-03
32	191.25	55000	689.00	.5608-01	.6837-01	.7678-01	54.89	3.078	.4435	563.3	.8045-03
32	191.25	55500	690.00	.7777-01	.9481-01	.1065	54.90	4.269	.4435	563.2	.1116-02
32	191.25	56000	691.00	.1589	.1936	.2173	55.03	8.745	.4421	561.5	.2278-02
32	191.25	56500	692.00	.9421-01	.1149	.1290	54.87	5.170	.4437	563.4	.1351-02
32	191.25	57000	693.00	.2082	.2538	.2851	54.88	11.43	.4436	563.4	.2987-02

DATE 05 MAR 76

AMES 3.5-211 1148

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0-S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
32	197.00	.8000	694.00	.4865-01	.5932-01	.6563-01	54.83	2.667	.4442	564.0	.6980-03
32	197.00	.6700	695.00	.6014-01	.7335-01	.8239-01	54.79	3.295	.4446	564.5	.8631-03
32	197.00	.9260	696.00	.1898	.2315	.2500	54.85	10.41	.4449	563.7	.2724-02
32	209.80	.1500-01	697.00	.1028	.1254	.1409	54.75	5.628	.4449	565.0	.1475-02
32	209.80	.3000-01	698.00	.3473	.4228	.4743	55.29	19.19	.4398	558.6	.4976-02
32	209.80	.5000-01	699.00	.3790	.4613	.5175	55.29	20.95	.4396	558.3	.5430-02
32	209.80	.7000-01	700.00	.3799	.4624	.5187	55.31	21.01	.4394	558.0	.5442-02
32	209.80	.1000+00	701.00	.2085	.2537	.2845	55.43	11.56	.4382	556.4	.2986-02
32	209.80	.1500	702.00	.1242	.1511	.1695	55.41	6.883	.4384	556.7	.1779-02
32	209.80	.2000	703.00	.4582-01	.5578-01	.6259-01	55.23	2.531	.4402	559.0	.6566-03
32	209.80	.3000	704.00	.3063-01	.3741-01	.4201-01	54.94	1.686	.4430	562.6	.4402-03
32	209.80	.3500	705.00	.4064-01	.4956-01	.5566-01	54.86	2.230	.4438	563.6	.5831-03
32	209.80	.3750	706.00	.1032	.1258	.1412	54.97	5.674	.4427	562.2	.1480-02
32	209.80	.5000	707.00	.1306	.1591	.1786	55.11	7.200	.4413	560.5	.1873-02
32	209.80	.6000	708.00	.1022	.1245	.1398	54.98	5.620	.4426	562.1	.1466-02
32	209.80	.7000	709.00	.1152	.1403	.1575	55.04	6.338	.4421	561.4	.1651-02
32	209.80	.8000	710.00	.3331-01	.4059-01	.4557-01	55.01	1.832	.4424	561.8	.4777-03
32	209.80	.8700	711.00	.3956-01	.4820-01	.5412-01	55.01	2.176	.4423	561.7	.5673-03
32	209.80	.9260	712.00	.1230	.1499	.1683	55.01	6.767	.4423	561.7	.1764-02
32	217.70	.1500-01	713.00	.9353-01	.1141	.1282	54.68	5.114	.4458	565.9	.1343-02
32	217.70	.3000-01	714.00	.3444	.4192	.4703	55.29	19.04	.4396	558.3	.4934-02
32	217.70	.5000-01	715.00	.3721	.4531	.5083	55.23	20.55	.4402	559.1	.5332-02
32	217.70	.7000-01	716.00	.4472	.5441	.6102	55.41	24.78	.4394	556.8	.6404-02
32	217.70	.1000+00	717.00	.2486	.3023	.3390	55.51	13.80	.4375	555.6	.3559-02
32	217.70	.1500	718.00	.1479	.1792	.2017	55.50	8.210	.4375	555.6	.2118-02
32	217.70	.2000	719.00	.5210-01	.6341-01	.7112-01	55.33	2.883	.4392	557.8	.7463-03
32	217.70	.3000	720.00	.2970-01	.3619-01	.4062-01	55.03	1.634	.4422	561.5	.4258-03
32	217.70	.3500	721.00	.3126-01	.3811-01	.4279-01	54.91	1.717	.4433	563.0	.4484-03
32	217.70	.3750	722.00	.1817-01	.2215-01	.2487-01	54.97	.9990	.4427	562.2	.2606-03
32	217.70	.5000	723.00	.6964-01	.8484-01	.9524-01	55.00	3.835	.4418	561.0	.9985-03
32	217.70	.6000	724.00	.8508-01	.1037	.1164	55.00	4.679	.4425	561.9	.1220-02
32	217.70	.7000	725.00	.5894-01	.7182-01	.8062-01	55.03	3.244	.4421	561.5	.8451-03
32	217.70	.8000	726.00	.3443-01	.4195-01	.4709-01	55.02	1.894	.4423	561.7	.4936-03
32	217.70	.8700	727.00	.5989-01	.7294-01	.8186-01	55.14	3.302	.4411	560.2	.8584-03
32	217.70	.9260	728.00	.1017	.1239	.1391	55.10	5.604	.4415	560.7	.1456-02

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AVES 3.3-211 IMH8

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ARC3.5-211(IMH8)OTS/NIPPLE/P/TRIP(10+S) EXT TANK

(RMBF05)

## EXTERNAL TANK

## PARAMETRIC DATA

ALPHA = 10.00 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	IN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBH	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
39	10.00	.0000	5.300	5.072	402.3	1283.	313.2	.5311	197.2	.2260-03	3648.	.1750-01
39	10.00	.0000	5.300	5.153	403.9	1274.	310.7	.5335	195.7	.2288-03	3634.	.1750-01
40	10.00	.0000	5.300	4.790	403.9	1333.	326.1	.5318	205.4	.2173-03	3723.	.1750-01
41	10.00	.0000	5.300	4.704	406.4	1354.	331.3	.5344	208.6	.2149-03	3752.	.1750-01
42	10.00	.0000	5.300	4.727	406.5	1350.	330.3	.5347	208.0	.2157-03	3747.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
39	.00000	.30000-02	730.00	.4028	.4927	.5547	54.63	22.00	.4525	586.0	.5915-02
39	.00000	.10000-01	731.00	.1155	.1411	.1587	55.03	6.357	.4486	580.9	.1694-02
39	.00000	.15000-01	732.00	.8156-01	.9954-01	.1119	55.25	4.506	.4486	578.2	.1195-02
39	.00000	.25000-01	734.00	.6047	.7366	.8268	55.75	33.71	.4417	571.9	.6848-02
39	.00000	.30000-01	735.00	.9291	1.132	1.270	55.81	51.85	.4411	571.2	.1359-01
39	.00000	.40000-01	737.00	.6766	.8249	.9263	55.56	37.59	.4435	574.3	.9907-02
39	.00000	.45000-01	738.00	.6238	.7607	.8545	55.46	34.59	.4445	575.6	.9136-02
39	.00000	.50000-01	739.00	.5665	.6913	.7769	55.28	31.32	.4462	577.8	.8301-02
39	.00000	.60000-01	740.00	.5160	.6295	.7072	55.38	28.58	.4452	576.5	.7560-02
39	.00000	.80000-01	741.00	.4449	.5427	.6096	55.42	24.66	.4448	576.0	.6517-02
39	.00000	.10000-00	742.00	.3496	.4264	.4790	55.41	19.37	.4450	576.2	.5121-02
39	.00000	.12500	743.00	.2729	.3328	.3739	55.38	15.12	.4452	576.5	.3997-02
39	.00000	.15000	744.00	.2359	.2878	.3234	55.38	13.07	.4452	576.5	.3457-02
39	.00000	.17500	745.00	.1568	.1913	.2150	55.28	8.667	.4462	577.8	.2298-02
39	.00000	.20000	746.00	.1238	.1511	.1699	55.08	6.816	.4462	580.4	.1815-02
39	.00000	.21500	747.00	.1092	.1334	.1500	54.99	6.005	.4490	581.4	.1602-02
39	.00000	.23000	748.00	.9439-01	.1153	.1298	54.93	5.184	.4496	582.3	.1385-02
39	.00000	.24000	749.00	.9085-01	.1110	.1249	54.96	4.993	.4493	581.8	.1333-02
39	.00000	.25000	750.00	.7312-01	.8922-01	.1003	55.31	4.044	.4459	577.4	.1071-02
39	.00000	.30000	751.00	.8348-01	.1020	.1147	55.03	4.594	.4487	581.0	.1224-02
40	.00000	.35000	752.00	.7953-01	.9630-01	.1077	60.35	4.800	.4258	578.7	.1193-02
40	.00000	.40000	753.00	.7742-01	.9372-01	.1048	60.43	4.678	.4251	577.7	.1161-02
40	.00000	.50000	754.00	.8166-01	.9885-01	.1105	60.46	4.938	.4248	577.3	.1224-02



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(RMBF05)

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	H/H/HT	TW DEG. R	STN NO R=0.9
40	.00000	.60000	755.00	.5920-01	.7174-01	.8023-01	60.14	3.560	.4278	581.3	.8883-03
40	.00000	.70000	756.00	.6044-01	.7322-01	.8187-01	60.25	3.642	.4268	580.0	.9055-03
40	.00000	.80000	757.00	.6096-01	.7388-01	.8264-01	60.08	3.662	.4283	582.1	.9148-03
40	.00000	.90000	758.00	.6198-01	.7502-01	.8385-01	60.45	3.746	.4249	577.5	.9291-03
40	.55.000	.22000	759.00	.7314-01	.8859-01	.9906-01	60.24	4.406	.4268	580.0	.1097-02
40	.55.000	.25000	760.00	.5291-01	.6398-01	.7145-01	60.79	3.217	.4218	573.2	.7924-03
40	.55.000	.27000	761.00	.7342-01	.8873-01	.9906-01	60.93	4.473	.4205	571.5	.1099-02
40	.55.000	.30000	762.00	.6098-01	.7382-01	.8251-01	60.42	3.635	.4251	577.8	.9142-03
40	.55.000	.32000	763.00	.6243-01	.7561-01	.8453-01	60.30	3.764	.4263	579.4	.9362-03
40	.55.000	.34000	764.00	.9958-01	.1206	.1348	60.33	6.008	.4260	579.0	.1493-02
40	.55.000	.36000	765.00	.9009-01	.1091	.1219	60.38	5.439	.4256	578.4	.1351-02
40	.55.000	.38000	766.00	.8073-01	.9773-01	.1092	60.43	4.878	.4251	577.7	.1210-02
40	.55.000	.40000	767.00	.1281	.1551	.1734	60.42	7.742	.4252	577.8	.1921-02
40	.67.500	.23000	768.00	.5851-01	.7087-01	.7924-01	60.27	3.526	.4266	579.7	.8776-03
40	.67.500	.25000	769.00	.4334-01	.5240-01	.5853-01	60.76	2.633	.4221	573.6	.6491-03
40	.67.500	.27000	770.00	.6571-01	.7944-01	.8871-01	60.84	3.998	.4214	572.6	.9840-03
40	.67.500	.29000	771.00	.5154-01	.6235-01	.6965-01	60.65	3.126	.4230	574.9	.7722-03
40	.67.500	.30000	772.00	.5997-01	.7263-01	.8119-01	60.32	3.618	.4261	579.1	.8993-03
40	.67.500	.31000	773.00	.8879-01	.1076	.1203	60.18	5.343	.4274	580.9	.1332-02
40	.67.500	.32000	774.00	.9331-01	.1131	.1265	60.13	5.610	.4279	581.5	.1400-02
40	.67.500	.33000	775.00	.9211-01	.1116	.1248	60.14	5.539	.4278	581.4	.1382-02
40	.67.500	.34000	776.00	.1008	.1221	.1366	60.12	6.058	.4279	581.6	.1512-02
40	.67.500	.35000	777.00	.1241	.1504	.1682	60.12	8.692	.4278	581.5	.1862-02
40	.67.500	.36000	778.00	.1445	.1751	.1959	60.14	10.99	.4276	581.3	.2169-02
40	.67.500	.37000	779.00	.1827	.2214	.2476	60.16	15.41	.4274	581.1	.2742-02
40	.67.500	.38000	780.00	.2136	.2588	.2894	60.18	12.85	.4274	580.9	.3204-02
40	.67.500	.39000	781.00	.2561	.3102	.3470	60.18	15.41	.4274	580.7	.3842-02
40	.67.500	.40000	782.00	.2386	.2890	.3232	60.19	14.36	.4273	580.3	.3579-02
40	.67.500	.41000	783.00	.2139	.2591	.2897	60.20	12.87	.4272	580.6	.3208-02
40	.67.500	.42000	784.00	.1790	.2168	.2424	60.28	10.79	.4265	579.6	.2685-02
40	.67.500	.43000	785.00	.1680	.2035	.2275	60.25	10.12	.4267	579.9	.2519-02
40	.67.500	.44000	786.00	.1623	.1966	.2198	60.26	9.781	.4266	579.8	.2434-02
40	.67.500	.45000	787.00	.1611	.1952	.2182	60.26	9.709	.4267	579.9	.2417-02
40	.67.500	.46000	788.00	.1334	.1616	.1807	60.24	8.037	.4268	580.1	.2001-02
40	.67.500	.47000	789.00	.7895-01	.9562-01	.1069	60.30	4.761	.4263	579.3	.1184-02
40	.67.500	.48000	790.00	.7588-01	.9206-01	.1030	59.79	4.537	.4310	585.7	.1140-02
40	.67.500	.49000	791.00	.8040-01	.9758-01	.1092	59.91	4.821	.4299	584.2	.1208-02
40	.67.500	.50000	792.00	.8306-01	.1008	.1129	59.68	4.957	.4320	587.1	.1248-02
40	.67.500	.51000	793.00	.7905-01	.9578-01	.1071	60.17	4.756	.4275	581.0	.1186-02
40	.78.000	.27000	794.00	.5188-01	.6271-01	.7002-01	60.87	3.158	.4210	572.2	.7767-03
40	.78.000	.28000	795.00	.6698-01	.8103-01	.9053-01	60.62	4.060	.4234	575.4	.1004-02
40	.78.000	.29000	796.00	.1050	.1272	.1422	60.23	6.324	.4269	580.2	.1575-02
40	.78.000	.31000	797.00	.2070	.2509	.2806	60.09	12.44	.4282	581.9	.3106-02

ARC3.5-211(14+8)OTS/NIPPLE/P/TRIPI(0+S) EXT TANK											
RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
40	78.000	32000	799.00	.2856	.3463	.3874	60.03	17.15	.4288	582.8	.4287-02
40	78.000	32500	799.00	.3010	.3650	.4083	60.01	18.07	.4290	583.0	.4518-02
40	78.000	33000	800.00	.3226	.3911	.4375	60.02	19.36	.4289	582.9	.4842-02
40	78.000	33439	801.00	.3439	.4169	.4685	60.00	20.63	.4291	583.2	.5162-02
40	78.000	33000	802.00	.3630	.4401	.4924	60.01	21.79	.4290	583.0	.5449-02
40	79.000	34500	803.00	.3041	.3686	.4124	60.03	18.25	.4288	582.8	.4564-02
40	78.000	35000	804.00	.2506	.3037	.3397	60.07	15.05	.4284	582.2	.3760-02
40	78.000	35500	805.00	.1920	.2328	.2604	60.08	11.54	.4283	582.1	.2882-02
40	79.000	36000	806.00	.2221	.2644	.2832	60.11	11.01	.4281	581.7	.2750-02
40	78.000	36500	807.00	.1970	.2386	.2669	60.22	11.86	.4271	581.5	.2955-02
40	78.000	37000	808.00	.1857	.2250	.2517	60.13	11.16	.4279	581.4	.2786-02
40	79.000	37500	809.00	.2180	.2438	.2611	60.11	10.81	.4280	581.7	.2699-02
40	78.000	38000	810.00	.1633	.1979	.2213	60.14	9.820	.4278	581.3	.2450-02
40	79.000	39000	811.00	.1410	.1708	.1911	60.11	8.480	.4277	581.4	.2115-02
40	79.000	40000	812.00	.1239	.1502	.1690	60.11	7.450	.4281	581.8	.1860-02
42	80.000	40000-01	995.00	.4256	.5122	.5702	62.99	26.91	.4088	562.8	.6380-02
42	80.000	40000-01	996.00	.4461	.5373	.5935	62.99	28.10	.4111	566.0	.6692-02
42	80.000	40000-01	997.00	.3977	.4792	.5339	62.88	25.00	.4121	567.3	.5967-02
42	80.000	40000-01	998.00	.3768	.4540	.5059	62.84	23.68	.4124	567.7	.5654-02
42	80.000	40000-01	999.00	.2546	.3214	.3838	62.85	37.62	.4125	567.8	.8983-02
42	80.000	40000-00	931.00	.1295	.1561	.1740	62.74	16.00	.4133	567.8	.3821-02
40	80.000	40000	813.00	.4117-01	.4984-01	.5570-01	60.41	8.125	.4253	569.0	.1944-02
40	80.000	40000	814.00	.3469-01	.4198-01	.4691-01	60.51	2.099	.4254	576.8	.6172-03
40	80.000	40000	815.00	.2837-01	.3429-01	.3828-01	60.89	1.727	.4209	572.0	.5199-03
40	80.000	40000	816.00	.4101-01	.4957-01	.5533-01	60.94	2.499	.4204	571.3	.4247-03
40	80.000	40000	817.00	.1921	.2325	.2697	60.58	11.64	.4237	575.9	.6140-03
40	80.000	40000	818.00	.3605	.4367	.4883	60.22	21.71	.4270	580.3	.2879-03
40	80.000	40000	819.00	.3371	.4085	.4569	60.12	20.27	.4279	581.6	.5407-02
40	80.000	40000	820.00	.2971	.3602	.4029	60.05	17.84	.4286	582.4	.5058-02
40	80.000	40000	821.00	.3054	.3703	.4142	60.03	18.33	.4288	582.8	.4459-02
40	80.000	40000	822.00	.4780	.5794	.6482	60.03	28.69	.4288	582.7	.4584-02
40	80.000	40000	823.00	.3124	.3787	.4246	60.05	18.76	.4286	582.5	.7174-02
40	80.000	40000	824.00	.3586	.4346	.4861	60.11	21.56	.4280	581.7	.4689-02
40	80.000	40000	825.00	.5300	.6422	.7183	60.12	33.86	.4279	581.5	.5381-02
40	80.000	40000	826.00	.5373	.6488	.7239	62.39	33.52	.4182	577.5	.7952-02
41	80.000	36000	829.00	.3181	.3841	.4285	62.44	19.86	.4177	576.8	.8092-02
41	80.000	37000	830.00	.2205	.2662	.2969	62.47	13.77	.4175	576.4	.4791-02
41	80.000	37500	831.00	.1549	.1870	.2086	62.47	9.674	.4175	576.2	.3320-02
41	80.000	38000	832.00	.9763-01	.1179	.1315	62.49	6.101	.4173	576.4	.2332-02
41	80.000	39000	833.00	.7132-01	.8610-01	.9605-01	62.46	4.455	.4175	576.2	.1470-02
41	80.000	40000	834.00	.6424-01	.7757-01	.8654-01	62.43	4.011	.4178	576.5	.1074-02
41	80.000	40000	835.00	.6552-01	.7912-01	.8829-01	62.37	4.087	.4183	577.6	.9575-03
41	80.000	40000	835.00								.8669-03

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AMES 3.5-211 11ME

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(RNBFO5)

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0-5) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TH DEG. R	STN NO R-0.9
41	90.000	.60000	836.00	.6436-01	.7787-01	.8700-01	61.80	3.978	.4235	584.7	.9710-03
41	90.000	.70000	837.00	.6296-01	.7612-01	.8501-01	62.01	3.904	.4216	582.2	.9493-03
41	90.000	.80000	838.00	.5599-01	.6771-01	.7563-01	61.92	3.467	.4224	583.3	.8443-03
41	90.000	.90000	839.00	.5828-01	.7029-01	.7837-01	62.76	3.657	.4149	572.9	.8769-03
41	112.50	.23000	840.00	.2700-01	.3257-01	.3631-01	62.78	1.695	.4147	572.6	.4063-03
41	112.50	.25000	841.00	.1989-01	.2370-01	.2639-01	63.35	1.247	.4095	565.5	.2958-03
41	112.50	.27000	842.00	.9791-02	.1178-01	.1311-01	63.66	6.233	.4067	561.6	.1470-03
41	112.50	.30000	843.00	.5941-01	.7161-01	.7980-01	62.99	3.742	.4128	570.0	.8934-03
41	112.50	.33000	844.00	.1076	.1297	.1446	62.82	6.757	.4143	572.0	.1618-02
41	112.50	.35000	845.00	.9801-01	.1182	.1317	62.83	6.159	.4142	571.9	.1474-02
41	112.50	.37000	846.00	.6148-01	.7413-01	.8262-01	62.87	3.865	.4139	571.5	.9248-03
41	112.50	.40000	847.00	.1912-01	.2306-01	.2570-01	62.91	1.201	.4144	572.1	.2877-03
41	112.50	.45000	848.00	.8724-02	.1052-01	.1173-01	62.74	5.474	.4150	573.0	.1313-03
41	112.50	.50000	849.00	.1442-01	.1739-01	.1938-01	62.86	.9065	.4139	571.5	.2169-03
41	112.50	.55000	850.00	.1856-01	.2237-01	.2493-01	62.95	1.168	.4132	570.5	.2791-03
41	112.50	.60000	851.00	.3009-01	.3633-01	.4053-01	62.44	1.879	.4177	576.8	.4532-03
41	112.50	.65000	852.00	.5414-01	.5538-01	.7295-01	62.38	3.377	.4183	577.5	.8155-03
41	112.50	.70000	853.00	.5691-01	.6867-01	.7659-01	62.62	3.564	.4161	574.5	.8566-03
41	112.50	.75000	854.00	.5665-01	.6929-01	.7611-01	62.94	3.566	.4132	570.6	.8520-03
41	112.50	.80000	855.00	.5313-01	.6413-01	.7155-01	62.48	3.319	.4174	576.3	.8000-03
41	112.50	.90000	856.00	.7361-01	.8472-01	.9887-01	62.97	4.635	.4129	570.1	.1107-02
41	125.40	.84000	857.00	.4261-01	.5141-01	.5733-01	62.64	2.669	.4159	574.2	.6413-03
41	125.40	.85000	858.00	.5114-01	.6170-01	.6881-01	62.63	3.203	.4160	574.5	.7697-03
41	125.40	.86000	859.00	.5473-01	.6604-01	.7366-01	62.61	3.427	.4162	574.6	.8239-03
41	125.40	.87000	860.00	.4617-01	.5571-01	.6213-01	62.61	2.890	.4162	574.7	.6949-03
41	125.40	.88000	861.00	.4291-01	.5177-01	.5774-01	62.65	2.689	.4158	574.1	.6459-03
41	125.40	.89000	862.00	.5001-01	.6032-01	.6726-01	62.71	3.136	.4152	573.4	.7525-03
41	125.40	.90000	863.00	.5193-01	.6261-01	.6979-01	62.87	3.265	.4138	571.4	.7811-03
41	125.40	.91000	864.00	.4209-01	.5071-01	.5550-01	63.09	2.655	.4119	568.7	.6328-03
41	129.30	.92600	865.00	.6297-01	.7594-01	.8465-01	62.83	3.956	.4142	572.0	.9474-03
41	129.30	.80000	866.00	.3197-01	.3858-01	.4303-01	62.59	2.001	.4164	574.9	.4813-03
41	129.30	.81000	867.00	.3272-01	.3949-01	.4404-01	62.59	2.048	.4164	574.9	.4926-03
41	129.30	.82000	868.00	.3239-01	.3907-01	.4356-01	62.70	2.031	.4154	573.5	.4874-03
41	129.30	.83000	869.00	.3706-01	.4470-01	.4984-01	62.75	2.326	.4149	573.0	.5577-03
41	135.00	.40000-01	870.00	.3005	.3616	.4026	63.45	19.07	.4086	564.2	.4513-02
41	135.00	.50000-01	871.00	.3191	.3843	.4281	63.22	20.17	.4107	567.1	.4796-02
41	135.00	.60000-01	872.00	.2832	.3412	.3801	63.14	17.88	.4114	568.1	.4257-02
41	135.00	.70000-01	873.00	.2556	.3091	.3443	63.13	16.20	.4115	568.2	.3857-02
41	135.00	.80000-01	874.00	.2487	.2996	.3337	63.16	15.71	.4112	567.8	.3738-02
41	135.00	.90000-01	875.00	.1959	.1877	.2091	63.19	9.848	.4109	567.4	.2342-02
41	135.00	.10000+00	876.00	.7520-01	.9060-01	.1009	63.12	4.746	.4116	568.4	.1130-02
41	135.00	.15000	877.00	.3060-01	.3589-01	.4111-01	62.96	1.927	.4130	570.3	.4602-03
41	135.00	.20000	878.00	.2680-01	.3232-01	.3603-01	62.81	1.684	.4144	572.1	.4033-03

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OF POOR QUALITY

DATE 05 MAR 76

AMES 3.3-211 1148

ARC3.5-21 (1148)OTS/NIPPLE/P/TRIP(O+S) EXT TANK

PAGE 122

:PM8F051

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
41	135.00	40000	879.00	.2371-01	.2859-01	.3187-01	62.82	1.489	.4143	572.1	.3567-03
41	135.00	50000	880.00	.1414-01	.1704-01	.1899-01	63.02	.8911	.4125	569.6	.2126-03
41	135.00	55000	881.00	.3813-01	.4594-01	.5119-01	63.10	2.406	.4118	568.6	.5733-03
41	135.00	60000	882.00	.5032-01	.6071-01	.6770-01	62.68	3.154	.4156	573.8	.7573-03
41	135.00	65000	883.00	.4890-01	.5902-01	.6583-01	62.53	3.058	.4169	575.6	.7362-03
41	135.00	70000	884.00	.3620-01	.4365-01	.4867-01	62.80	2.273	.4145	572.3	.5446-03
41	135.00	75000	885.00	.2828-01	.3529-01	.3932-01	63.03	1.846	.4124	569.5	.4403-03
41	135.00	80000	886.00	.2841-01	.3428-01	.3822-01	62.71	1.782	.4153	573.4	.4276-03
41	135.00	84000	887.00	.5280-01	.6367-01	.7098-01	62.81	3.316	.4144	572.2	.7943-03
41	135.00	85000	888.00	.3384-01	.4081-01	.4557-01	62.79	2.125	.4146	572.5	.5091-03
41	135.00	86000	889.00	.2791-01	.3366-01	.3753-01	62.77	1.753	.4146	572.4	.4199-03
41	135.00	87000	890.00	.2184-01	.2634-01	.2937-01	62.80	1.371	.4148	572.7	.3286-03
41	135.00	88000	891.00	.2594-01	.3128-01	.3487-01	62.88	1.727	.4137	571.3	.4131-03
41	135.00	89000	892.00	.2746-01	.3311-01	.3690-01	63.03	1.629	.4144	572.2	.3903-03
41	135.00	90000	893.00	.3057-01	.3684-01	.4105-01	63.21	1.927	.4124	569.4	.4596-03
41	135.00	91000	894.00	.2783-01	.3351-01	.3733-01	62.95	1.759	.4108	567.2	.4182-03
41	135.00	92000	895.00	.4901-01	.5908-01	.6584-01	62.86	3.085	.4131	570.4	.7371-03
41	135.00	93000	896.00	.3692-01	.4451-01	.4961-01	62.89	2.322	.4137	571.2	.5553-03
41	142.30	42000	897.00	.2682-01	.3234-01	.3605-01	62.93	1.686	.4139	571.5	.4034-03
41	142.30	43500	898.00	.5391-01	.6499-01	.7243-01	62.93	3.392	.4133	570.7	.8108-03
41	142.30	45000	899.00	.3660-01	.4412-01	.4917-01	62.93	2.303	.4133	570.7	.5504-03
41	142.30	46000	900.00	.2969-01	.3577-01	.3986-01	63.05	1.872	.4122	569.2	.4464-03
41	142.30	47000	901.00	.5625-01	.6785-01	.7564-01	62.79	3.533	.4145	572.4	.8465-03
41	142.30	48000	902.00	.4444-01	.5358-01	.5971-01	62.91	2.796	.4134	570.9	.6684-03
41	142.30	49500	903.00	.7835-01	.9427-01	.1049	63.35	4.963	.4078	561.5	.1174-02
41	142.30	51500	904.00	.6246-01	.7511-01	.8357-01	63.54	3.969	.4061	559.1	.9357-03
41	142.30	53000	905.00	.2188	.2637	.2938	62.90	13.76	.4119	567.1	.3283-03
41	142.30	54500	906.00	.1932	.2327	.2592	62.93	12.16	.4116	566.6	.2898-02
41	142.30	56000	907.00	.1359	.1649	.1837	62.99	8.624	.4111	565.9	.2054-02
41	142.30	57500	908.00	.2492-01	.3000-01	.3341-01	63.12	1.573	.4099	564.3	.3737-03
41	142.30	59000	909.00	.8121-01	.9777-01	.1089	63.15	5.128	.4096	563.9	.1218-02
41	142.30	60500	910.00	.9666-01	.1164	.1296	63.29	6.105	.4096	563.9	.1449-02
41	142.30	62000	911.00	.8997-01	.1082	.1204	63.47	5.688	.4084	562.2	.1347-02
41	142.30	63500	912.00	.3355-01	.4036-01	.4491-01	63.44	2.130	.4068	560.0	.5027-03
41	142.30	65000	913.00	.3595-01	.4324-01	.4812-01	63.43	2.281	.4070	560.3	.5386-03
41	142.30	66500	914.00	.3919-01	.4714-01	.5246-01	63.43	2.486	.4071	560.5	.5872-03
41	142.30	68000	915.00	.4599-01	.5532-01	.6156-01	63.42	2.916	.4072	560.6	.6891-03
41	142.30	69500	916.00	.4996-01	.6010-01	.6689-01	63.54	3.169	.4071	560.5	.7486-03
41	142.30	71000	917.00	.5639-01	.6781-01	.7545-01	63.54	3.583	.4061	559.1	.8447-03
41	142.30	72500	918.00	.6249-01	.7511-01	.8354-01	63.51	3.980	.4047	557.1	.9357-03
41	142.30	74000	919.00	.6766-01	.7511-01	.8354-01	63.51	6.202	.4064	559.5	.1463-02
41	142.30	75500	920.00	.1088	.1310	.1459	63.11	6.866	.4100	564.4	.1632-02
41	142.30	77000	921.00	.1143	.1376	.1533	63.06	7.206	.4104	565.0	.1714-02

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ANES 3.5-211 1H48

PAGE 123  
(RANBEO5)

ARC3.5-21111H481OTS/NIPPLE/P/TRIP(0-S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TW DEG. R	STN NO R=0.9
42	163.12	.43000	937.00	.1424	.1716	.1911	62.97	8.968	.4113	566.2	.2137-02
42	163.12	.44000	938.00	.1058	.1275	.1420	63.01	6.659	.4109	565.7	.1588-02
42	163.12	.44500	939.00	.1018	.1226	.1365	63.12	6.428	.4099	564.3	.1527-02
42	163.12	.45000	940.00	.9267-01	.1116	.1242	63.16	5.853	.4095	563.8	.1390-02
42	163.12	.50000	941.00	.9714-01	.1168	.1300	63.51	6.169	.4064	559.5	.1455-02
42	163.12	.60000	942.00	.5296-01	.6374-01	.7096-01	63.27	3.351	.4086	562.5	.7939-03
42	163.12	.70000	943.00	.2946-01	.3543-01	.3943-01	63.43	1.868	.4071	560.5	.4414-03
42	163.12	.80000	944.00	.1884-01	.2267-01	.2523-01	63.38	1.194	.4075	561.1	.2823-03
42	168.00	.25000	945.00	.3899-01	.4692-01	.5223-01	63.29	2.467	.4084	562.2	.5844-03
42	168.00	.36000	946.00	.4483-01	.5408-01	.6020-01	63.27	2.843	.4085	562.4	.6736-03
42	163.00	.37000	947.00	.5731-01	.6897-01	.7679-01	63.26	3.625	.4087	562.6	.8591-03
42	168.00	.37500	948.00	.6581-01	.7921-01	.8819-01	63.21	4.160	.4091	563.2	.9866-03
42	168.00	.39500	950.00	.8305-01	.9335-01	.1113	63.27	5.254	.4085	562.4	.1245-02
42	168.00	.39000	951.00	.9522-01	.1146	.1276	63.17	6.015	.4095	563.7	.1428-02
42	168.00	.39500	952.00	.1048	.1262	.1405	63.14	6.617	.4097	564.0	.1571-02
42	168.00	.40000	953.06	.1105	.1335	.1487	63.11	6.998	.4100	564.4	.1663-02
42	168.00	.40500	954.00	.1157	.1394	.1552	63.08	7.301	.4102	564.8	.1736-02
42	168.00	.41000	955.00	.1002	.1206	.1342	63.21	6.332	.4091	563.1	.1502-02
42	168.00	.41500	956.00	.1219	.1468	.1635	63.04	7.683	.4106	565.3	.1828-02
42	168.00	.42000	957.00	.1225	.1476	.1644	63.02	7.721	.4108	565.6	.1838-02
42	168.00	.42500	958.00	.1244	.1497	.1668	63.13	7.852	.4098	564.2	.1865-02
42	168.00	.43000	959.00	.1244	.1497	.1668	63.01	9.736	.4109	565.7	.2318-02
42	168.00	.44000	960.00	.1545	.1851	.2073	63.03	6.545	.4107	565.5	.1558-02
42	168.00	.44500	961.00	.8678-01	.1045	.1164	63.11	5.477	.4100	564.4	.1301-02
42	168.00	.45000	962.00	.8501-01	.1023	.1140	63.18	5.371	.4094	563.6	.1275-02
42	168.00	.45500	963.00	.8736-01	.1052	.1171	63.23	5.524	.4089	563.0	.1310-02
42	168.00	.46000	964.00	.8512-01	.1040	.1158	63.25	5.467	.4087	562.7	.1296-02
42	168.00	.47000	965.00	.8277-01	.9350-01	.1109	63.31	5.240	.4082	562.0	.1241-02
42	168.00	.48000	966.00	.7704-01	.9268-01	.1032	63.37	4.882	.4077	561.2	.1154-02
42	168.00	.49000	967.00	.6503-01	.7942-01	.8838-01	63.46	4.190	.4069	560.1	.9893-03
42	168.00	.49500	968.00	.3817-01	.4593-01	.5110-01	63.45	2.422	.4069	560.3	.6720-03
42	168.00	.50000	969.00	.4196-01	.5047-01	.5617-01	63.42	2.661	.4071	560.5	.6287-03
42	168.00	.50500	970.00	.4725-01	.5684-01	.6326-01	63.40	2.995	.4074	560.8	.7083-03
42	168.00	.51000	971.00	.5488-01	.6600-01	.7345-01	63.40	3.478	.4074	560.9	.8221-03
42	168.00	.51500	972.00	.5788-01	.6861-01	.7746-01	63.47	3.673	.4067	559.9	.8571-03
42	168.00	.52000	973.00	.6118-01	.7355-01	.8182-01	63.61	3.891	.4055	559.2	.9163-03
42	168.00	.52500	974.00	.6655-01	.7996-01	.8992-01	63.81	4.246	.4037	555.8	.9363-03
42	168.00	.53000	975.00	.1172	.1409	.1567	63.59	7.451	.4057	558.5	.1755-02
42	168.00	.53500	976.00	.2302-01	.2769-01	.3081-01	63.55	1.464	.4060	558.9	.3449-03
42	168.00	.54000	982.00	.8174-01	.9950-01	.1098	62.86	5.138	.4123	567.6	.1227-02
42	168.00	.54500	983.00	.1129	.1359	.1513	63.08	7.119	.4103	564.8	.1692-02
42	168.00	.55000	984.00	.1631	.1963	.2185	63.19	10.30	.4093	563.4	.2445-02
38	168.00	.55500	990.00	.2045	.2491	.2797	56.08	11.47	.4418	576.6	.3013-02

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP(0+S) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
38	180.00	50000-01	601.00	.2050	.2499	.2806	55.89	11.45	.4436	579.0	.3022-02
38	180.00	60000-01	602.00	.1896	.2312	.2597	55.80	10.58	.4445	580.1	.2796-02
38	180.00	70000-01	603.00	.1800	.2195	.2466	55.77	10.04	.4446	580.5	.2654-02
38	180.00	80000-01	604.00	.1817	.2216	.2489	55.79	10.14	.4445	580.3	.2679-02
38	180.00	10000+00	605.00	.1074	.1309	.1471	55.79	5.990	.4445	580.2	.1583-02
38	180.00	15000	606.00	.5436-01	.6629-01	.7446-01	55.82	3.035	.4442	579.8	.8016-03
38	180.00	20000	607.00	.2230-01	.2722-01	.3059-01	55.62	1.241	.4463	582.4	.3291-03
38	180.00	21000	608.00	.1744-01	.2128-01	.2392-01	55.61	.9696	.4463	582.5	.2573-03
38	180.00	30000	610.00	.2539-01	.3098-01	.3481-01	55.65	1.413	.4459	582.0	.3746-03
38	180.00	35000	611.00	.4118-01	.5027-01	.5651-01	55.54	2.287	.4470	583.4	.6078-03
38	180.00	36000	612.00	.5146-01	.6282-01	.7062-01	55.50	2.856	.4473	583.9	.7596-03
38	180.00	37000	613.00	.7128-01	.8704-01	.9786-01	55.46	3.953	.4478	584.4	.1052-02
38	180.00	37500	614.00	.9545-01	.1166	.1311	55.42	5.290	.4481	584.9	.1409-02
38	180.00	38000	615.00	.1141	.1393	.1567	55.39	6.318	.4485	585.3	.1685-02
38	180.00	38500	616.00	.1324	.1618	.1819	55.33	7.326	.4490	586.0	.1956-02
38	180.00	39000	617.00	.1538	.1879	.2114	55.28	8.501	.4495	586.7	.2272-02
38	180.00	39500	618.00	.1618	.1977	.2224	55.28	8.943	.4495	586.7	.2390-02
38	180.00	40000	619.00	.1636	.1999	.2249	55.23	9.033	.4500	587.3	.2417-02
38	180.00	40500	620.00	.1652	.2020	.2273	55.20	9.121	.4503	587.7	.2442-02
38	180.00	41000	621.00	.1606	.1963	.2208	55.28	8.878	.4495	586.7	.2373-02
38	180.00	41500	622.00	.1669	.2041	.2297	55.14	9.205	.4508	588.4	.2467-02
38	180.00	42000	623.00	.1639	.2049	.231	55.11	10.14	.4511	588.8	.2718-02
38	180.00	42500	624.00	.1781	.2178	.2451	55.10	9.814	.4512	588.9	.2633-02
38	180.00	43000	625.00	.1584	.1912	.2152	55.13	8.623	.4510	588.6	.2312-02
38	180.00	43500	626.00	.1416	.1731	.1948	55.12	7.803	.4510	588.7	.2092-02
38	180.00	44000	627.00	.1157	.1415	.1592	55.13	6.381	.4509	588.5	.1710-02
38	180.00	44500	628.00	.8725-01	.1067	.1200	55.12	4.810	.4509	588.5	.1289-02
38	180.00	45000	629.00	.5440-01	.7674-01	.8861-01	55.17	3.550	.4510	588.6	.3518-03
38	180.00	45500	630.00	.1344	.1644	.1849	55.24	7.417	.4506	588.1	.1587-02
38	180.00	46000	631.00	.1455	.1778	.2000	55.38	8.036	.4499	587.2	.2149-02
38	180.00	46500	632.00	.1224	.1495	.1681	55.47	6.776	.4485	585.4	.1807-02
38	180.00	47000	633.00	.8067-01	.9851-01	.1108	54.99	4.475	.4477	584.3	.1191-02
38	180.00	47500	634.00	.7319-01	.8953-01	.1008	54.94	4.025	.4523	590.3	.082-02
38	180.00	48000	635.00	.4427-01	.5417-01	.6099-01	55.09	2.432	.4528	591.0	.2547-03
38	180.00	48500	636.00	.4489-01	.5489-01	.6177-01	55.33	2.473	.4513	589.0	.6635-03
38	180.00	49000	637.00	.2813-01	.3437-01	.3865-01	55.09	1.557	.4490	586.0	.4155-03
38	180.00	49500	638.00	.2325-01	.2843-01	.3200-01	55.10	1.281	.4513	589.0	.3437-03
38	180.00	50000	639.00	.4575-01	.5594-01	.6295-01	55.09	2.521	.4512	588.9	.6762-03
38	180.00	50500	640.00	.4705-01	.5754-01	.6476-01	55.09	2.592	.4513	589.0	.6555-03
38	180.00	51000	641.00	.5027-01	.6148-01	.6919-01	55.09	2.769	.4514	589.1	.7431-03
38	180.00	51500	642.00	.5406-01	.6611-01	.7440-01	55.11	2.979	.4512	588.8	.7591-03
38	180.00	52000	643.00	.5797-01	.7086-01	.7971-01	55.22	3.201	.4510	587.4	.8566-03
38	180.00	52500	644.00	.6181-01	.7548-01	.8487-01	55.46	3.428	.4478	584.4	.9126-03

DATE 05 MAR 76

AMES 3.5-211 IM48

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(0.5) EXT TANK

PAGE 125

(R068705)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
38	180.00	.95000	649.00	.1302-01	.1591-01	.1790-01	55.31	.7202	.4492	586.3	.1923-03
38	191.25	.35000	650.00	.3701-01	.4516-01	.5076-01	55.60	2.058	.4464	582.6	.5461-03
38	191.25	.35000	651.00	.4272-01	.5214-01	.5860-01	55.61	2.376	.4463	582.5	.6304-03
38	191.25	.37000	652.00	.5993-01	.7314-01	.8221-01	55.59	3.332	.4465	582.7	.6844-03
38	191.25	.37500	653.00	.6491-01	.7921-01	.8901-01	55.64	3.612	.4460	582.1	.9578-03
38	191.25	.38000	654.00	.8573-01	.1059	.1190	55.59	4.821	.4465	582.8	.1280-02
38	191.25	.38500	655.00	.9558-01	.1167	.1311	55.59	5.313	.4465	582.8	.1411-02
38	191.25	.39000	656.00	.1204	.1469	.1652	55.59	6.693	.4465	582.8	.1777-02
38	191.25	.39500	657.00	.1311	.1601	.1799	55.51	7.278	.4473	583.7	.1935-02
38	191.25	.40000	658.00	.1417	.1730	.1945	55.48	7.862	.4476	584.1	.2092-02
38	191.25	.40500	659.00	.1459	.1793	.2016	55.48	8.148	.4475	584.1	.2168-02
38	191.25	.41000	660.00	.1416	.1728	.1942	55.55	7.863	.4469	583.3	.2089-02
38	191.25	.41500	661.00	.1266	.1545	.1737	55.47	7.020	.4476	584.2	.1868-02
38	191.25	.42000	662.00	.1594	.1934	.2174	55.44	8.780	.4476	584.2	.2332-02
38	191.25	.42500	663.00	.1660	.2028	.2280	55.43	9.203	.4481	584.8	.2452-02
38	191.25	.43000	664.00	.2009	.2453	.2756	55.47	11.14	.4476	584.2	.2966-02
38	191.25	.44000	665.00	.1520	.1956	.2087	55.49	8.435	.4475	584.0	.2244-02
38	191.25	.45000	666.00	.7602-01	.9283-01	.1044	55.44	4.214	.4480	584.7	.1122-02
38	191.25	.45500	667.00	.7495-01	.9154-01	.1029	55.41	4.153	.4482	585.0	.1107-02
38	191.25	.46000	668.00	.9124-01	.1114	.1253	55.46	5.060	.4478	584.4	.1347-02
38	191.25	.47000	669.00	.1208	.1475	.1658	55.45	6.696	.4479	584.5	.1793-02
38	191.25	.48000	670.00	.1327	.1620	.1821	55.45	7.355	.4479	584.5	.1959-02
38	191.25	.49000	671.00	.1302	.1599	.1786	55.53	7.227	.4471	583.5	.1921-02
38	191.25	.50000	672.00	.1293	.1577	.1772	55.68	7.197	.4457	581.7	.1907-02
38	191.25	.60000	673.00	.4698-01	.5740-01	.6456-01	55.34	2.600	.4489	585.9	.6939-03
38	191.25	.70000	674.00	.5593-01	.6831-01	.7681-01	55.42	3.100	.4482	584.9	.8259-03
38	191.25	.85000	676.00	.4674-01	.5711-01	.6423-01	54.96	2.569	.4493	581.8	.6857-03
38	191.25	.85000	677.00	.4949-01	.6048-01	.6803-01	54.92	2.718	.4497	582.3	.7261-03
38	191.25	.87000	678.00	.5304-01	.6481-01	.7290-01	54.94	2.914	.4495	582.1	.7182-03
38	191.25	.89000	679.00	.5587-01	.6829-01	.7682-01	54.90	3.068	.4495	582.6	.8199-03
38	191.25	.89000	680.00	.5959-01	.7281-01	.8189-01	54.99	3.277	.4491	581.5	.8742-03
38	191.25	.90000	681.00	.6212-01	.7585-01	.8529-01	55.11	3.423	.4479	580.0	.9109-03
38	191.25	.91000	682.00	.6328-01	.7723-01	.8678-01	55.29	3.499	.4461	577.6	.9274-03
38	191.25	.92000	683.00	.1250	.1527	.1717	55.06	6.881	.4483	580.6	.1833-02
38	191.25	.95000	684.00	.1465-01	.1791-01	.2014-01	55.01	.8063	.4489	581.2	.2150-03
38	197.00	.33000	685.00	.2727-01	.3327-01	.3739-01	55.29	1.508	.4461	577.7	.3936-03
38	197.00	.34000	686.00	.2762-01	.3371-01	.3788-01	55.28	1.527	.4462	577.8	.4048-03
38	197.00	.35000	687.00	.3156-01	.3851-01	.4328-01	55.27	1.744	.4462	577.9	.4625-03
38	197.00	.36000	688.00	.4054-01	.4948-01	.5560-01	55.29	2.242	.4451	576.4	.5941-03
38	197.00	.37000	689.00	.4347-01	.5302-01	.5957-01	55.39	2.408	.4451	576.4	.6368-03
38	197.00	.37000	690.00	.5086-01	.6204-01	.6970-01	55.39	2.817	.4451	576.4	.7451-03
38	197.00	.50000	691.00	.2115	.2579	.2896	55.49	11.74	.4441	575.1	.3097-02
38	197.00	.60000	692.00	.7006-01	.8549-01	.9607-01	55.30	3.874	.4460	577.5	.1027-02

DATE 05 MAR 76

AVES 3.5-211 11448

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP(0-5) EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.5	H/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/MT	TN DEG. R	STN NO R=0.9
39	197.00	70000	693.00	.1175	.1434	.1612	55.31	6.501	.4459	577.4	.1722-02
39	197.00	.80000	694.00	.3046-01	.3719-01	.4180-01	55.19	1.681	.4470	578.9	.4465-03
39	197.00	.87000	695.00	.5371-01	.6559-01	.7375-01	55.10	2.960	.4479	580.1	.7876-03
39	197.00	.92600	696.00	.1108	.1353	.1520	55.16	6.110	.4474	579.3	.1624-02
39	209.80	.15000-01	697.00	.8314-01	.9783-01	.1100	55.21	4.424	.4469	578.7	.1.75-02
39	209.80	.30000-01	698.00	.2172	.2645	.2969	55.79	12.12	.4412	571.4	.3178-02
39	209.80	.50000-01	699.00	.3311	.4031	.4524	55.87	18.50	.4404	570.4	.4843-02
39	209.80	.70000-01	700.00	.3140	.3829	.4290	55.89	17.55	.4403	570.2	.4593-02
39	209.80	.10000-00	701.00	.1914	.2329	.2612	56.00	10.72	.4382	568.8	.2793-02
39	209.80	.15000	702.00	.1380	.1679	.1883	56.04	7.732	.4388	568.2	.2017-02
39	209.80	.20000	703.00	.3536-01	.4306-01	.4833-01	55.78	1.972	.4413	571.5	.5173-03
39	209.80	.30000	704.00	.2972-01	.3625-01	.4073-01	55.38	1.646	.4432	575.5	.4353-03
39	209.80	.40000	705.00	.5681-01	.4491-01	.5047-01	55.31	2.036	.4459	577.4	.5378-03
39	209.80	.50000	706.00	.5708-01	.4962-01	.5621-01	55.43	3.154	.4447	575.9	.8361-03
39	209.80	.60000	707.00	.8299-01	.1012	.1136	55.56	4.611	.4435	574.3	.1215-02
39	209.80	.70000	708.00	.6802-01	.5295-01	.5919-01	55.44	3.771	.4446	575.8	.9959-03
39	209.80	.80000	709.00	.5740-01	.4999-01	.5661-01	55.49	3.185	.4441	575.1	.5408-03
39	209.80	.90000	710.00	.1727-01	.2107-01	.2367-01	55.40	.9567	.4451	576.3	.2530-03
39	209.80	.10000	711.00	.3121-01	.3808-01	.4278-01	55.40	1.729	.4451	576.3	.4573-03
39	209.80	.20000	712.00	.7592-01	.9372-01	.1053	55.34	4.251	.4456	577.0	.1.25-02
39	209.80	.30000	713.00	.7297-01	.6812-01	.1032	55.09	4.020	.4481	580.2	.1070-02
39	209.80	.40000	714.00	.2457	.2993	.3359	55.71	13.71	.4411	571.2	.3593-02
39	209.80	.50000-01	715.00	.3112	.3791	.4256	55.80	17.34	.4420	572.4	.4554-02
39	209.80	.60000-01	716.00	.4547	.5339	.6216	55.78	25.36	.4413	571.5	.3553-02
39	209.80	.70000-01	717.00	.2308	.2810	.3153	55.90	12.90	.4402	570.0	.3370-02
39	209.80	.80000	718.00	.1439	.1752	.1966	55.91	8.046	.4401	569.9	.2115-02
39	209.80	.90000	719.00	.2983-01	.4128-01	.5308-01	55.67	2.163	.4424	572.9	.3154-03
39	209.80	.10000	720.00	.2363-01	.2884-01	.3241-01	55.27	1.706	.4463	573.9	.2963-03
39	209.80	.20000	721.00	.1953-01	.2384-01	.2680-01	55.20	1.078	.4470	573.9	.3149-03
39	209.80	.30000	722.00	.2148-01	.2622-01	.2947-01	55.27	1.187	.4463	576.7	.1.933-03
39	209.80	.40000	723.00	.3398-01	.4024-01	.4522-01	55.37	1.827	.4453	577.4	.3310-03
39	209.80	.50000	724.00	.6354-01	.7753-01	.8712-01	55.31	3.514	.4459	577.1	.4379-03
39	209.80	.60000	725.00	.4081-01	.4979-01	.5594-01	55.34	2.258	.4456	578.5	.4018-03
39	209.80	.70000	726.00	.2741-01	.3346-01	.3761-01	55.23	1.514	.4467	576.8	.4687-03
39	209.80	.80000	727.00	.3342-01	.4078-01	.4582-01	55.36	1.850	.4454	578.0	.4687-03
39	209.80	.90000	728.00	.7501-01	.9155-01	.1029	55.26	4.145	.4464	578.0	.1359-02



DATE 05 MAR 76  
AVES 3.5-211 1M48  
ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP(0.5) EXT TANK

EXTERNAL TANK  
PARAMETRIC DATA  
ALPHA = .0000 BETA = .0000 RV/L = 1.500

SCALE  
VINP FT/SEC  
RHO SLUG/FT<sup>3</sup>  
3715.  
.6728-04

\*\*\*TEST CONDITIONS\*\*\*

RV/L  
212.5  
1704  
1336.  
326.7

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT <sup>2</sup> SEC	QDOT BTU/FT <sup>2</sup> SEC	HU/HT	TH DEG. R	SIN NO R=0.9
45	180.00	.40000-01	600.00	.4013	.4828	.5373	34.71	13.93	.4072	554.5	.1076-01
45	180.00	.50000-01	601.00	.3558	.4293	.4778	34.66	12.37	.4080	555.5	.9555-02
45	180.00	.60000-01	602.00	.2541	.3178	.3538	34.64	9.149	.4083	556.0	.7081-02
45	180.00	.70000-01	603.00	.2545	.2954	.3289	34.63	8.502	.4085	556.3	.6583-02
45	180.00	.80000-01	604.00	.2531	.3166	.3525	34.63	9.113	.4085	556.2	.7355-02
45	180.00	.90000-00	605.00	.1622	.1932	.2173	34.62	5.616	.4085	556.4	.4349-02
45	180.00	.10000-01	605.00	.8097-01	.9746-01	.1085	34.60	2.801	.4091	557.1	.2171-02
45	180.00	.20000-01	605.00	.3972-01	.4653-01	.5193-01	34.51	1.336	.4105	559.0	.1339-02
45	180.00	.30000-01	607.00	.3018-01	.3634-01	.4048-01	34.50	1.041	.4108	559.3	.6237-03
45	180.00	.40000-01	608.00	.2481-01	.2932-01	.3329-01	34.48	.8555	.4111	559.7	.6559-03
45	180.00	.50000-01	609.00	.1547-01	.1864-01	.2076-01	34.47	.5333	.4112	559.9	.4152-03
45	180.00	.60000-01	610.00	.1454-01	.1751-01	.1950-01	34.48	.5012	.4110	559.7	.3501-03
45	180.00	.70000-01	611.00	.1434-01	.1728-01	.1925-01	34.48	.4946	.4110	559.6	.3549-03
45	180.00	.80000-01	612.00	.2529-01	.3047-01	.3394-01	34.48	.8722	.4110	559.6	.6787-03
45	180.00	.90000-01	613.00	.4081-01	.4915-01	.5475-01	34.48	1.407	.4110	559.7	.1095-02
45	180.00	.10000-01	614.00	.4980-01	.5939-01	.6682-01	34.48	1.717	.4110	559.6	.1338-02
45	180.00	.20000-01	615.00	.5518-01	.6647-01	.7404-01	34.47	1.902	.4111	559.6	.1461-02
45	180.00	.30000-01	616.00	.5572-01	.6832-01	.7611-01	34.47	1.955	.4111	559.8	.1532-02
45	180.00	.40000-01	617.00	.5513-01	.6641-01	.7397-01	34.47	1.901	.4111	559.8	.1473-02
45	180.00	.50000-01	618.00	.5355-01	.6451-01	.7186-01	34.47	1.846	.4112	559.9	.1543-02
45	180.00	.60000-01	619.00	.6110-01	.7350-01	.8193-01	34.47	2.105	.4112	559.9	.2157-02
45	180.00	.70000-01	620.00	.8020-01	.9568-01	1.077	34.47	2.767	.4112	560.2	.2651-02
45	180.00	.80000-01	621.00	.9339-01	1.197	1.334	34.46	3.425	.4114	560.2	.3535-02
45	180.00	.90000-01	622.00	.1355	.1632	.1818	34.46	4.669	.4114	560.2	.4200-02
45	180.00	.10000-01	623.00	.1555	.1885	.2100	34.47	5.394	.4112	559.9	.4170-02
45	180.00	.20000-01	624.00	.2239	.2769	.3085	34.46	7.923	.4113	560.1	.6170-02
45	180.00	.30000-01	625.00	.2353	.2859	.3976	34.46	10.21	.4114	560.2	.7351-02

DATE 05 MAR 76

AMES 3.5-211 1M+8

ARC3.5-211(1M+8)OTS/NIPPLE/P/TRIPLO+S) EXT TANK

PAGE 129

(PAGE 129)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	MM/MT	TN DEO. R	STN NO R=0.9
45	180.00	.45000	628.00	.3128	.3769	.4198	34.46	10.78	.4114	560.1	.8395-02
45	180.00	.45500	629.00	.2686	.3235	.3605	34.46	9.255	.4114	560.2	.7209-02
45	180.00	.46000	630.00	.2118	.2552	.2843	34.45	7.237	.4115	560.4	.5595-02
45	180.00	.47000	631.00	.1013	.1220	.1359	34.45	3.489	.4115	560.4	.2718-02
45	180.00	.48000	632.00	.4552-01	.5484-01	.6109-01	34.46	1.569	.4114	560.2	.1222-02
45	180.00	.49000	633.00	.2499-01	.3010-01	.3353-01	34.47	.8612	.4112	559.9	.6755-03
45	180.00	.50000	634.00	.5290-01	.6371-01	.7097-01	34.49	2.990	.4109	559.5	.1419-02
45	180.00	.51000	635.00	.8668-01	.1044	.1163	34.49	1.890	.4109	559.4	.2372-02
45	180.00	.52000	636.00	.8836-01	.1065	.1186	34.43	3.042	.4115	560.9	.2572-02
45	180.00	.53000	637.00	.7444-01	.8968-01	.9991-01	34.44	2.594	.4117	560.6	.1998-02
45	180.00	.54000	638.00	.5639-01	.6793-01	.7567-01	34.46	1.943	.4113	560.0	.1513-02
45	180.00	.55000	639.00	.5085-01	.6128-01	.6826-01	34.50	1.756	.4106	559.1	.1262-02
45	180.00	.56000	640.00	.4329-01	.5213-01	.5805-01	34.53	1.495	.4103	559.5	.1161-02
45	180.00	.57000	641.00	.3523-01	.4242-01	.4724-01	34.55	1.217	.4099	559.2	.9451-01
45	180.00	.58000	642.00	.3768-01	.4537-01	.5053-01	34.54	1.302	.4100	559.2	.1011-02
45	180.00	.59000	643.00	.3950-01	.4763-01	.5304-01	34.54	1.366	.4099	559.2	.1021-02
45	180.00	.60000	644.00	.7823-01	.9418-01	.1049	34.57	2.705	.4095	557.6	.2033-02
45	180.00	.61000	645.00	.1105	.1330	.1481	34.61	3.825	.4089	556.7	.2987-02
45	180.00	.62000	646.00	.1130-01	.1360-01	.1515-01	34.62	.3913	.4087	556.6	.2031-03
45	180.00	.63000	647.00	.1333-01	.1605-01	.1788-01	34.53	.4603	.4102	558.5	.2376-03
45	180.00	.64000	648.00	.1639-01	.1973-01	.2198-01	34.55	.5563	.4099	559.1	.3336-03
45	180.00	.65000	649.00	.3984-01	.4797-01	.5341-01	34.56	1.377	.4097	557.9	.1022-02
45	180.00	.66000	650.00	.4430-01	.5333-01	.5939-01	34.57	1.571	.4095	557.9	.1022-02
45	180.00	.67000	651.00	.4243-01	.5108-01	.5689-01	34.57	1.567	.4095	557.9	.1022-02
45	180.00	.68000	652.00	.3226-01	.4243-01	.5117-01	34.59	1.571	.4094	557.9	.1022-02
45	180.00	.69000	653.00	.3063-01	.4056-01	.4853-01	34.57	2.033	.4095	557.9	.1022-02
45	180.00	.70000	654.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4095	557.9	.1022-02
45	180.00	.71000	655.00	.3043-01	.4056-01	.4853-01	34.57	2.033	.4097	557.9	.1022-02
45	180.00	.72000	656.00	.3043-01	.4056-01	.4853-01	34.57	2.033	.4096	557.9	.1022-02
45	180.00	.73000	657.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.74000	658.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.75000	659.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.76000	660.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.77000	661.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.78000	662.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.79000	663.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.80000	664.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.81000	665.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.82000	666.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.83000	667.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.84000	668.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.85000	669.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.86000	670.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.87000	671.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.88000	672.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.89000	673.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.90000	674.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.91000	675.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.92000	676.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.93000	677.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.94000	678.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.95000	679.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.96000	680.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.97000	681.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.98000	682.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	.99000	683.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02
45	180.00	1.00000	684.00	.3043-01	.4056-01	.4853-01	34.56	2.033	.4097	557.9	.1022-02

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AMES 3.5-211 1HHR

PAGE 129

ARC3.5-211(1HHR)OTS/NIPPLE/P/TRIP/INTS EXT TANK

(HANSF07)

## EXTERNAL TANK

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RV/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHC SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
46	.0000	.0000	5.300	4.660	405.0	1359.	332.7	.5325	209.5	.2133-03	3760.	.1750-01
47	.0000	.0000	5.300	4.748	405.5	1346.	329.4	.5348	207.4	.2164-03	3741.	.1750-01
48	.0000	.0000	5.300	5.144	405.5	1280.	312.4	.5367	196.7	.2200-03	3543.	.1750-01
49	.0000	.0000	5.300	4.849	405.6	1326.	324.3	.5342	204.2	.2155-03	3713.	.1750-01
50	.0000	.0000	5.300	4.721	406.1	1350.	330.4	.5342	208.1	.2154-03	3747.	.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HA/HT	TH DEG. R	STN NO R=0.9
47	.0000	.30000-02	730.00	.3275	.3953	.4438	60.97	19.97	.4277	597.1	.4028-02
47	.0000	.10000-01	731.00	.7369-01	.5917-01	.9964-01	61.36	4.521	.4242	592.2	.1133-02
47	.0000	.15000-01	732.00	.4126-01	.5539-01	.5570-01	61.63	2.543	.4215	593.3	.6197-03
47	.0000	.25000-01	734.00	.2993	.3512	.4028	62.22	18.62	.4163	591.4	.4496-02
47	.0000	.30000-01	735.00	.4596	.5144	.6182	62.30	28.63	.4156	590.6	.6197-02
47	.0000	.40000-01	737.00	.4656	.5634	.6286	62.04	28.95	.4180	593.7	.7001-02
47	.0000	.45000-01	738.00	.4712	.5692	.6352	61.92	29.18	.4190	595.1	.7072-02
47	.0000	.60000-01	739.00	.3663	.4428	.4944	61.71	22.60	.4210	597.9	.5501-02
47	.0000	.70000-01	740.00	.3468	.4132	.4680	61.74	21.41	.4205	597.5	.5815-02
47	.0000	.80000-01	741.00	.3208	.3979	.4329	61.76	19.81	.4207	597.5	.5815-02
47	.0000	.90000-01	742.00	.2239	.2706	.3021	61.77	13.83	.4205	597.2	.5815-02
47	.0000	.12500	743.00	.1723	.2082	.2324	61.75	10.64	.4204	597.1	.5815-02
47	.0000	.15000	744.00	.1334	.1612	.1800	61.75	9.239	.4205	597.3	.5815-02
47	.0000	.17500	745.00	.8102-01	.9795-01	.1094	61.68	4.929	.4205	597.1	.5815-02
47	.0000	.20000	746.00	.5629-01	.6816-01	.7501-01	61.61	3.469	.4212	596.1	.6197-02
47	.0000	.21500	747.00	.4838-01	.5835-01	.6516-01	61.63	2.374	.4211	596.8	.6197-02
47	.0000	.23000	749.00	.4239-01	.5122-01	.5719-01	61.81	2.620	.4201	596.5	.6197-02
47	.0000	.24000	749.00	.3638-01	.4390-01	.4836-01	62.20	2.263	.4155	597.7	.6197-02
47	.0000	.25000	750.00	.2846-01	.3426-01	.3815-01	62.99	1.793	.4134	592.0	.6197-02
47	.0000	.26000	750.00	.4384-01	.5335-01	.5985-01	56.47	2.476	.4134	592.0	.6197-02
48	.0000	.50000	754.00	.4018-01	.4898-01	.5501-01	56.02	2.250	.4134	592.0	.6197-02
48	.0000	.60000	755.00	.3961-01	.4828-01	.5421-01	56.10	2.223	.4134	592.0	.6197-02
48	.0000	.70000	756.00	.3961-01	.4828-01	.5421-01	56.10	2.223	.4134	592.0	.6197-02
48	.0000	.90000	757.00	.3510-01	.4281-01	.4810-01	55.85	1.950	.4134	592.0	.6197-02

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AMES 3.5-211 11448

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(RABF07)

ARC3.5-211(11448)OTS/NIPPLE/P/TRIP/INTS EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TH DEG. R	STN NO R=0.9
48	.00000	.90000	758.00	.2851-01	.3471-01	.3894-01	56.40	1.608	.4400	572.9	.4170-03
48	55.000	.22000	759.00	.4438-01	.5402-01	.6059-01	56.48	2.507	.4393	571.9	.6490-03
48	55.000	.25000	760.00	.2950-01	.3581-01	.4010-01	57.20	2.507	.4324	562.9	.4304-03
48	55.000	.27000	761.00	.4097-01	.4970-01	.5562-01	57.38	2.351	.4306	560.6	.5974-03
48	67.500	.23000	768.00	.3930-01	.4783-01	.5365-01	56.49	2.220	.4392	571.8	.5747-03
48	67.500	.25000	769.00	.2766-01	.3358-01	.3760-01	57.16	1.581	.4327	563.4	.4036-03
48	67.500	.27000	770.00	.4184-01	.5076-01	.5683-01	57.29	2.397	.4314	561.7	.6102-03
48	67.500	.50000	789.00	.1492-01	.1817-01	.2038-01	56.35	.8407	.4405	573.5	.2182-03
48	67.500	.60000	790.00	.2859-01	.3491-01	.3924-01	55.66	1.592	.4472	582.1	.4192-03
48	67.500	.70000	791.00	.2268-01	.2767-01	.3109-01	55.83	1.266	.4455	580.0	.3323-03
48	67.500	.80000	792.00	.2111-01	.2579-01	.2900-01	55.51	1.172	.4486	584.0	.3097-03
48	67.500	.90000	793.00	.4936-01	.6013-01	.6750-01	56.22	2.775	.4418	575.2	.7223-03
48	78.000	.27000	794.00	.4289-01	.5202-01	.5823-01	57.38	2.461	.4305	560.6	.6253-03
50	90.000	.40000-01	985.00	.4683	.5638	.6278	63.16	29.58	.4095	563.9	.7026-02
50	90.000	.50000-01	986.00	.4553	.5486	.6111	62.91	28.64	.4117	567.0	.6835-02
50	90.000	.60000-01	987.00	.3835	.4623	.5152	62.74	24.06	.4132	569.0	.5760-02
50	90.000	.70000-01	988.00	.3697	.4457	.4968	62.67	23.17	.4139	569.9	.5553-02
50	90.000	.80000-01	989.00	.4509	.5919	.6598	62.65	30.75	.4141	570.2	.7375-02
50	90.000	.90000-01	990.00	.2579	.3111	.3469	62.57	16.11	.4148	571.2	.3876-02
50	90.000	.15000	991.00	.1318	.1591	.1775	62.28	8.209	.4174	574.8	.1982-02
49	90.000	.20000	813.00	.4199-01	.5107-01	.5725-01	56.68	2.380	.4373	569.3	.6136-03
49	90.000	.25000	814.00	.3499-01	.4252-01	.4766-01	56.85	1.989	.4357	567.2	.5110-03
49	90.000	.30000	815.00	.2780-01	.3373-01	.3776-01	57.33	1.594	.4311	561.2	.4054-03
49	90.000	.35000	816.00	.3981-01	.4827-01	.5401-01	57.49	2.288	.4296	559.3	.5802-03
49	90.000	.40000	817.00	.3044-01	.2478-01	.2772-01	59.79	1.222	.4290	579.8	.3052-03
49	90.000	.45000	818.00	.2666-01	.3243-01	.3637-01	58.77	1.566	.4385	592.7	.3992-03
49	90.000	.50000	819.00	.3710	.6047-01	.6775-01	59.17	2.945	.4347	587.6	.7444-03
49	90.000	.55000	820.00	.3522-01	.5201-01	.5752-01	59.87	4.453	.4375	591.4	.1133-02
49	90.000	.60000	821.00	.5732-01	.7018-01	.7849-01	59.93	3.471	.4277	578.2	.8644-03
49	90.000	.65000	822.00	.3813-01	.4617-01	.5161-01	60.14	2.293	.4258	575.5	.5687-03
49	90.000	.70000	823.00	.3068-01	.3703-01	.4130-01	61.53	.7873	.4171	563.8	.4563-03
49	90.000	.75000	824.00	.1280-01	.1542-01	.1719-01	61.04	1.874	.4129	558.1	.1901-03
49	90.000	.80000	825.00	.1667-01	.2017-01	.2254-01	60.34	1.006	.4239	573.0	.2485-03
49	90.000	.85000	826.00	.2852-01	.3449-01	.3853-01	60.52	1.726	.4222	570.7	.4250-03
49	90.000	.90000	827.00	.1839-01	.2223-01	.2483-01	60.62	1.115	.4213	569.5	.2739-03
49	90.000	.95000	828.00	.1787-01	.2168-01	.2426-01	59.67	1.067	.4201	581.3	.2669-03
49	90.000	.00000	829.00	.3085-01	.3743-01	.4190-01	59.55	1.837	.4312	582.8	.4609-03
49	90.000	.05000	830.00	.6522-01	.7900-01	.8833-01	60.04	3.916	.4267	576.7	.9730-03
49	90.000	.10000	831.00	.4949-01	.5984-01	.6682-01	60.56	2.997	.4218	570.2	.7372-03
49	90.000	.15000	832.00	.5385-01	.6528-01	.7303-01	59.80	3.220	.4289	579.7	.8039-03
49	90.000	.20000	833.00	.6730-01	.8143-01	.9098-01	50.48	4.064	.4236	572.5	.1003-02
49	90.000	.25000	834.00	.5940-01	.7194-01	.8042-01	60.09	3.569	.4262	576.1	.8861-03
49	90.000	.30000	835.00	.5404-01	.6545-01	.7317-01	60.07	3.246	.4264	576.4	.8061-03

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AMES 3.5-211 IH48

PAGE 131

(RABF07)

ARC3.5-211(IH48)OTS/NIPPLE/P/TRIP/INTS EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/HRF R=0.9	H/HRF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
49	125.40	.86000	859.00	.4683-01	.5672-01	.6342-01	60.05	2.812	.4266	576.6	.6986-03
49	125.40	.87000	860.00	.4374-01	.5298-01	.5923-01	60.07	2.628	.4264	576.3	.6525-03
49	125.40	.88000	861.00	.4279-01	.5182-01	.5793-01	60.09	2.571	.4262	576.1	.6383-03
49	125.40	.89000	862.00	.5467-01	.6620-01	.7400-01	60.15	3.289	.4256	575.3	.8154-03
49	125.40	.90000	863.00	.5871-01	.7104-01	.7938-01	60.33	3.542	.4240	573.1	.8752-03
49	125.40	.91000	864.00	.5434-01	.6570-01	.7337-01	60.59	3.293	.4216	569.8	.8094-03
49	125.40	.92600	865.00	.1198	.1450	.1620	60.24	7.214	.4248	574.2	.1786-02
49	129.30	.80300	866.00	.4752-01	.5754-01	.6432-01	60.13	2.857	.4258	575.6	.7087-03
49	129.30	.81000	867.00	.3822-01	.4628-01	.5174-01	60.11	2.297	.4260	575.9	.5701-03
49	129.30	.82000	868.00	.7499-01	.4235-01	.4734-01	60.20	2.106	.4252	574.7	.5217-03
49	129.30	.83000	869.00	.5307-01	.6665-01	.7449-01	60.25	3.318	.4248	574.2	.8210-03
49	135.00	.40000-01	870.00	.5157	.6237	.6967	60.47	3.118	.4227	571.4	.7684-02
49	135.00	.50000-01	871.00	.4724	.5718	.6391	60.22	28.45	.4250	574.5	.7044-02
49	135.00	.70000-01	873.00	.3723	.4508	.5040	60.10	22.37	.4262	576.0	.5553-02
49	135.00	.80000-01	874.00	.3680	.4457	.4982	60.11	22.12	.4260	575.9	.5489-02
49	135.00	.10000+00	875.00	.2437	.2949	.3296	60.10	14.63	.4261	576.0	.3632-02
49	135.00	.15000	876.00	.1321	.1601	.1790	60.00	7.927	.4270	577.2	.1971-02
49	135.00	.20000	877.00	.6633-01	.8034-01	.8983-01	60.04	3.982	.4267	576.8	.9896-03
49	135.00	.50000	880.00	.5983-01	.7107-01	.7932-01	60.83	3.579	.4193	566.8	.8757-03
49	135.00	.55000	881.00	.9838-01	.1188	.1325	60.96	5.997	.4182	565.2	.1464-02
49	135.00	.60000	882.00	.7667-01	.9282-01	.1037	60.20	4.615	.4252	574.8	.1143-02
49	135.00	.65000	883.00	.7607-01	.9213-01	.1030	60.08	4.570	.4264	576.3	.1135-02
49	135.00	.70000	884.00	.5815-01	.7033-01	.7856-01	60.48	3.517	.4226	571.2	.8665-03
49	135.00	.75000	885.00	.5762-01	.6961-01	.7769-01	60.84	3.506	.4193	566.7	.8578-03
49	135.00	.80000	886.00	.4082-01	.4940-01	.5520-01	60.31	2.462	.4242	573.4	.6085-03
49	135.00	.84000	887.00	.1024	.1239	.1384	60.34	6.176	.4239	573.0	.1526-02
49	135.00	.85000	888.00	.8706-01	.1054	.1177	60.30	5.250	.4242	573.4	.1298-02
49	135.00	.86000	889.00	.6767-01	.8189-01	.9151-01	60.30	4.081	.4242	573.4	.1009-02
49	135.00	.87000	890.00	.5791-01	.7008-01	.7832-01	60.28	3.491	.4245	573.7	.8633-03
49	135.20	.88000	891.00	.5716-01	.6917-01	.7729-01	60.33	3.448	.4240	573.1	.8521-03
49	135.00	.89000	892.00	.5673-01	.6864-01	.7669-01	60.37	3.425	.4236	572.6	.8456-03
49	135.00	.90000	893.00	.6189-01	.7483-01	.8357-01	60.57	3.748	.4218	570.2	.9220-03
49	135.00	.91000	894.00	.5684-01	.6868-01	.7666-01	60.77	3.454	.4200	567.6	.8462-03
49	135.00	.92600	895.00	.2290-01	.1124	.1255	60.42	5.612	.4232	572.0	.1384-02
49	135.00	.95000	896.00	.6169-01	.7468-01	.8346-01	60.22	3.715	.4250	574.4	.9189-03
49	142.30	.43500	898.00	.9312-01	.1125	.1256	60.71	5.653	.4205	568.3	.1387-02
49	142.30	.45000	899.00	.9223-01	.1187	.1326	60.63	5.956	.4212	569.4	.1463-02
49	142.30	.50000	900.00	.9541-01	.1201	.1340	60.90	6.054	.4188	566.0	.1480-02
49	142.30	.60000	901.00	.8280-01	.1002	.1119	60.37	4.998	.4236	572.6	.1234-02
49	142.30	.70000	902.00	.9043-01	.1093	.1220	60.68	5.487	.4208	568.7	.1347-02
50	154.98	.94500	914.00	.1798	.2416	.2416	62.67	11.27	.4138	569.9	.2700-02
50	157.50	.70000-01	918.00	.3432	.4138	.4613	62.62	21.49	.4143	570.5	.5156-02
50	157.50	.80000-01	919.00	.3009	.3628	.4044	52.65	18.85	.4141	570.2	.4520-02

DATE 05 MAR 76

AMES 3.5-211 1H48

ARC3.5-21111H48)OTS/NIPPLE/P/TRIP/INT\$ EXT TANK

PAGE 132

(RMBF07)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
50	157.50	10000-00	920.00	.2379	.2868	.3197	62.68	14.91	.4138	569.8	.3573-02
50	157.50	20000	922.00	.6530-01	.7875-01	.8780-01	62.58	4.086	.4147	571.1	.9811-03
50	157.50	43500	924.00	.9771-01	.1177	.1312	62.85	6.141	.4122	567.7	.1467-02
50	157.50	85000	926.00	.4831-01	.5822-01	.6488-01	62.85	3.033	.4129	568.5	.7254-03
50	157.50	86000	927.00	.6054-01	.7297-01	.8133-01	62.74	3.798	.4133	569.1	.9092-03
50	157.50	87000	928.00	.6590-01	.7945-01	.8854-01	62.72	4.133	.4135	569.3	.9898-03
50	157.50	88000	929.00	.7374-01	.8890-01	.9909-01	62.69	4.622	.4137	569.7	.1108-02
50	157.50	89000	930.00	.8225-01	.9915-01	.1105	62.72	5.158	.4134	569.3	.1235-02
50	157.50	90000	931.00	.1064	.1283	.1429	62.85	6.691	.4122	567.6	.1598-02
50	157.50	91000	932.00	.1093	.1316	.1466	63.04	6.890	.4105	565.3	.1640-02
50	157.50	92600	933.00	.2143	.2583	.2879	62.75	13.45	.4132	568.9	.3219-02
50	163.12	44500	938.00	.1650	.1990	.2218	62.66	10.34	.4140	570.1	.2479-02
50	163.12	45000	939.00	.1654	.1993	.2222	62.73	10.37	.4134	569.2	.2483-02
50	163.12	45000	940.00	.1628	.1963	.2188	62.75	10.22	.4132	569.0	.2446-02
50	163.12	50000	941.00	.1144	.1377	.1534	62.97	7.201	.4112	566.2	.1716-02
50	163.12	60000	942.00	.9938-01	.1198	.1335	62.71	6.232	.4135	569.5	.1493-02
50	163.12	70000	943.00	.7854-01	.9466-01	.1055	62.81	4.933	.4126	568.2	.1179-02
50	163.12	80200	944.00	.5460-01	.6581-01	.7335-01	62.76	3.426	.4131	568.9	.8200-03
50	168.00	94500	960.00	.1799	.2169	.2417	62.69	11.28	.4137	569.6	.2702-02
50	168.00	96100	961.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	96200	962.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	96300	963.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	96400	964.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	96500	965.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	96600	966.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	96700	967.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	96800	968.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	96900	969.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	97000	970.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	97100	971.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	97200	972.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	97300	973.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	97400	974.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	97500	975.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	97600	976.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	97700	977.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	97800	978.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	97900	979.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	98000	980.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	98100	981.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	98200	982.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	98300	983.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	98400	984.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	98500	985.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	98600	986.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	98700	987.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	98800	988.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	98900	989.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	99000	990.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	99100	991.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	99200	992.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	99300	993.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	99400	994.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	99500	995.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	99600	996.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	99700	997.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	99800	998.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02
50	168.00	99900	999.00	.1597	.1925	.2146	62.73	10.02	.4133	569.1	.2399-02
50	168.00	100000	1000.00	.1597	.1925	.2146	62.73	10.02	.4133	569.6	.2702-02

ORIGINAL PAGE IS  
OF POOR QUALITY

ARC3.5-211 (1448)019/NIPPLE/P/TRIP/INTS EXT TANK

ANES 3.5-211 1448

DATE 05 MAR 75

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	H/H/HT	TW DEG. R	STN NO R=0.9
46	180.00	.10000+00	605.00	.2167	.2516	.2918	62.64	13.57	.4173	578.6	.3276-02
46	180.00	.15000	606.00	.1250	.1509	.1683	62.73	7.844	.4165	577.5	.1890-02
46	180.00	.20000	607.00	.6280-01	.7580-01	.8454-01	62.72	3.939	.4167	577.7	.9494-03
46	180.00	.21000	608.00	.4990-01	.6022-01	.6715-01	62.79	3.133	.4160	576.8	.7543-03
46	180.00	.22000	609.00	.4237-01	.5112-01	.5699-01	62.88	2.665	.4152	575.6	.6403-03
46	180.00	.44000	626.00	.2650	.3195	.3561	63.03	16.70	.4138	573.7	.4002-02
46	180.00	.44500	627.00	.3509	.4352	.4851	62.97	22.72	.4144	574.5	.5451-02
46	180.00	.45000	628.00	.3696	.4458	.4970	62.94	23.27	.4146	574.8	.5584-02
46	180.00	.45500	629.00	.2990	.3607	.4021	62.92	18.81	.4148	575.1	.4518-02
46	180.00	.46000	630.00	.2235	.2696	.3006	62.92	14.06	.4149	575.2	.3377-02
46	180.00	.47000	631.00	.1021	.1231	.1373	62.97	6.430	.4144	574.5	.1543-02
46	180.00	.48000	632.00	.5977-01	.7207-01	.8033-01	63.03	3.767	.4139	573.8	.9028-03
46	180.00	.50000	634.00	.1479	.1781	.1984	63.48	9.392	.4098	568.2	.2232-02
46	180.00	.55000	635.00	.1047	.1259	.1401	63.76	6.675	.4073	564.6	.1578-02
46	180.00	.60000	636.00	.1190	.1435	.1600	63.00	7.498	.4141	574.1	.1798-02
46	180.00	.65000	637.00	.1264	.1524	.1699	62.99	7.961	.4142	574.2	.1909-02
46	180.00	.70000	638.00	.7465-01	.8990-01	.1001	63.44	4.736	.4102	568.7	.1126-02
46	180.00	.75000	639.00	.6904-01	.8302-01	.9238-01	63.87	4.410	.4063	563.3	.1041-02
46	180.00	.80000	640.00	.6754-01	.8131-01	.9054-01	63.52	4.290	.4095	567.7	.1019-02
46	180.00	.85000	641.00	.6986-01	.8410-01	.9364-01	63.54	4.439	.4092	567.4	.1054-02
46	180.00	.86000	642.00	.1027	.1144	.1144	63.52	5.421	.4094	567.6	.1287-02
46	180.00	.87000	643.00	.8727-01	.1051	.1170	63.53	5.544	.4094	567.5	.1316-02
46	180.00	.88000	644.00	.8110-01	.9761-01	.1087	63.58	5.156	.4089	566.9	.1223-02
46	180.00	.89000	645.00	.9006-01	.1084	.1206	63.72	5.738	.4077	565.2	.1358-02
46	180.00	.90000	646.00	.9410-01	.1131	.1258	63.98	6.020	.4053	562.0	.1418-02
46	180.00	.92000	648.00	.3503	.4213	.4688	63.85	22.37	.4055	563.6	.5281-02
46	180.00	.95000	649.00	.1397-01	.1692-01	.1873-01	63.52	.8876	.4094	567.6	.2108-03
46	191.25	.44000	655.00	.1787	.2153	.2399	63.20	11.29	.4123	571.7	.2698-02
46	191.25	.45000	666.00	.1875	.2260	.2519	63.10	11.83	.4132	572.9	.2831-02
46	191.25	.45500	667.00	.1645	.1993	.2210	63.10	10.38	.4130	572.9	.2484-02
46	191.25	.46000	668.00	.1970	.2374	.2646	63.13	12.43	.4130	572.6	.2975-02
46	191.25	.47000	669.00	.1859	.2241	.2497	63.15	11.74	.4128	572.3	.2807-02
46	191.25	.48000	670.00	.1637	.1972	.2198	63.23	10.35	.4121	571.3	.2471-02
46	191.25	.49000	671.00	.1399	.1684	.1876	63.39	8.866	.4106	569.3	.2111-02
46	191.25	.50000	672.00	.1406	.1692	.1883	63.66	8.950	.4082	565.9	.2120-02
46	191.25	.60000	673.00	.8809-01	.1061	.1182	63.29	5.575	.4116	570.6	.1330-02
46	191.25	.70000	674.00	.1151	.1385	.1542	63.70	7.333	.4153	570.1	.1736-02
46	191.25	.85000	676.00	.8179-01	.9867-01	.1100	62.33	5.098	.4153	570.1	.1226-02
47	191.25	.9023-01	677.00	.9023-01	.1089	.1214	62.30	5.621	.4156	570.5	.1353-02
47	191.25	.1078	678.00	.1078	.1300	.1449	62.32	6.715	.4154	570.2	.1615-02
47	191.25	.89000	679.00	.8928-01	.1065	.1187	62.33	5.502	.4153	570.1	.1323-02
47	191.25	.9004-01	680.00	.9004-01	.1086	.1210	62.47	5.625	.4141	568.3	.1349-02
47	191.25	.1003	681.00	.1003	.1209	.1347	62.67	6.286	.4122	565.9	.1502-02

APES 3.5-211 1H43

ARC3.5-211:1H43OTS/NIPPLE/P/TRIP/INTS EXT TANK

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
47	191.25	91000	682.00	.1133	.1365	.1520	62.91	7.130	.4100	562.8	.1696-02
47	191.25	92600	683.00	.2663	.3209	.3577	62.59	16.67	.4129	566.8	.3989-02
47	191.25	95000	684.00	.2185-01	.2637-01	.2941-01	62.25	1.360	.4161	571.1	.3277-03
47	197.00	50000	691.00	.2410	.2904	.3235	62.76	15.13	.4114	564.7	.3609-02
47	197.00	60000	692.00	.9302-01	.1122	.1251	62.33	5.798	.4153	570.1	.1395-02
47	197.00	70000	693.00	.2353	.2836	.3160	62.63	14.74	.4126	566.3	.3525-02
47	197.00	80000	694.00	.6173-01	.7441-01	.8293-01	62.56	3.862	.4132	567.2	.9249-03
47	197.00	87000	695.00	.9081-01	.1095	.1221	62.45	5.671	.4142	568.6	.1361-02
47	197.00	92600	696.00	.2688	.3239	.3609	62.66	16.84	.4123	565.9	.4026-02
47	209.80	15000-01	697.00	.8127-01	.9840-01	.1100	61.20	4.974	.4255	584.1	.1222-02
47	209.80	30000-01	698.00	.5130	.6197	.6917	61.88	31.74	.4194	575.7	.7700-02
47	209.80	50000-01	699.00	.4449	.5376	.6000	61.83	27.51	.4198	576.3	.6679-02
47	209.80	70000-01	700.00	.4163	.5029	.5613	61.86	25.75	.4195	575.9	.6248-02
47	209.80	10000-00	701.00	.3075	.3713	.4143	62.03	19.08	.4181	573.9	.4614-02
47	209.80	15000	702.00	.1658	.2001	.2231	62.18	10.31	.4167	571.9	.2486-02
47	209.80	20000	703.00	.6703-01	.8092-01	.9028-01	62.09	4.162	.4175	573.1	.1006-02
47	209.80	30000	707.00	.1144	.1377	.1534	62.84	7.187	.4107	563.7	.1712-02
47	209.80	50000	708.00	.9063-01	.1093	.1218	62.45	5.660	.4142	568.6	.1358-02
47	209.80	70000	709.00	.1191	.1435	.1599	62.80	7.982	.4111	564.2	.1784-02
47	209.80	90000	710.00	.4463-01	.5377-01	.5990-01	62.74	2.800	.4116	564.9	.6684-03
47	209.80	92600	711.00	.5558-01	.6697-01	.7461-01	62.69	3.484	.4121	565.6	.8324-03
47	217.70	15000-01	712.00	.1776	.2151	.2405	61.07	10.85	.4268	585.8	.2672-02
47	217.70	30000-01	713.00	.1191	.1442	.1612	61.12	7.279	.4263	585.1	.1791-02
47	217.70	50000-01	714.00	.4856	.5867	.5547	61.90	30.06	.4192	575.4	.7289-02
47	217.70	70000-01	715.00	.3823	.4621	.5160	61.71	23.59	.4210	577.9	.5741-02
47	217.70	90000-01	716.00	.4205	.5079	.5668	61.92	26.04	.4190	575.1	.6310-02
47	217.70	10000-00	717.00	.2295	.2771	.3091	62.10	14.25	.4174	572.9	.3443-02
47	217.70	15000	718.00	.1750	.2112	.2355	62.21	10.89	.4164	571.5	.2624-02
47	217.70	20000	719.00	.6520-01	.7870-01	.8779-01	62.14	4.051	.4171	572.5	.9779-03
47	217.70	30000	723.00	.9644-01	.1162	.1294	62.77	6.054	.4113	564.6	.1444-02
47	217.70	50000	724.00	.7456-01	.8991-01	.1002	62.44	4.656	.4143	568.7	.1117-02
47	217.70	70000	725.00	.6908-01	.8322-01	.9270-01	62.78	4.337	.4112	564.5	.1034-02
47	217.70	90000	726.00	.4496-01	.5417-01	.6035-01	62.72	2.820	.4118	565.3	.6734-03
47	217.70	10000	727.00	.7035-01	.8474-01	.9438-01	62.83	4.420	.4108	563.5	.1053-02
47	217.70	15000	728.00	.1385	.1668	.1857	62.92	8.715	.4100	562.8	.2073-02



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(RMBF06)

## EXTERNAL TANK

ARC3.5-2111M48OTS/NIPPLE/P/TRIP

EXT TANK

## PARAMETRIC DATA

ALPHA = .0000 BETA = -5.000 RN/L = 5.000

## ...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
57	.0000	-5.000	5.300	4.796	404.2	1333.	325.9	.5322	205.3	.2176-03	3722.	.1750-01
58	.0000	-5.000	5.300	4.868	405.7	1325.	324.1	.5356	204.1	.2203-03	3711.	.1750-01
59	.0000	-5.000	5.300	5.124	406.3	1283.	313.1	.5364	197.2	.2283-03	3648.	.1750-01
60	.0000	-5.000	5.300	4.873	405.9	1323.	323.5	.5348	203.7	.2203-03	3708.	.1750-01
61	.0000	-5.000	5.300	4.697	406.3	1355.	331.6	.5343	208.8	.2147-03	3754.	.1750-01

## ...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HM/HT	TW DEG. R	STN NO R=0.9
58	.0000	.3000-02	730.00	.3500	.4216	.4696	61.77	21.62	.4109	555.0	.5188-02
59	.0000	.1000-01	731.00	.7364-01	.8861-01	.9864-01	62.08	4.572	.4081	551.1	.1091-02
58	.0000	.1500-01	732.00	.3654-01	.4393-01	.4887-01	62.36	2.279	.4055	547.7	.5408-03
59	.0000	.2500-01	734.00	.4015	.4822	.5361	62.73	25.19	.4021	543.1	.5937-02
59	.0000	.3000-01	735.00	.5480	.6580	.7315	62.76	34.39	.4019	542.7	.8101-02
59	.0000	.4000-01	737.00	.4855	.5834	.6487	62.55	30.37	.4037	545.3	.7181-02
59	.0000	.4500-01	738.00	.4849	.5827	.6481	62.48	30.29	.4044	546.2	.7173-02
59	.0000	.6000-01	739.00	.3758	.4518	.5026	62.41	23.45	.4051	547.1	.5561-02
59	.0000	.7000-01	740.00	.3357	.4300	.4783	62.43	22.34	.4049	546.8	.5294-02
59	.0000	.8000-01	741.00	.2386	.4034	.4487	62.47	20.97	.4045	546.3	.4966-02
59	.0000	.10000+00	742.00	.1820	.2187	.2433	62.46	14.90	.4045	546.3	.3529-02
59	.0000	.1500	743.00	.1442	.1733	.1928	62.44	11.37	.4046	546.5	.2692-02
59	.0000	.1500	744.00	.1442	.1733	.1928	62.44	9.006	.4047	546.6	.2134-02
59	.0000	.1500	745.00	.6828-01	.1061	.1181	62.38	5.507	.4053	547.4	.1306-02
59	.0000	.2000	746.00	.6293-01	.7567-01	.8420-01	62.29	3.920	.4062	548.6	.9314-03
59	.0000	.2150	747.00	.5411-01	.6508-01	.7243-01	62.20	3.366	.4070	549.6	.8010-03
59	.0000	.2300	748.00	.4449-01	.5351-01	.5956-01	62.15	2.764	.4075	550.3	.6586-03
59	.0000	.2400	749.00	.4233-01	.5091-01	.5664-01	62.27	2.636	.4063	548.7	.6266-03
59	.0000	.2500	750.00	.3277-01	.3935-01	.4375-01	62.69	2.094	.4025	543.6	.4845-03
59	.0000	.3000	751.00	.4184-01	.5033-01	.5601-01	62.21	2.603	.4069	549.5	.6194-03
59	.0000	.3500	752.00	.3873-01	.4689-01	.5241-01	58.06	2.249	.4254	555.1	.5647-03
59	.0000	.4000	753.00	.3726-01	.4511-01	.5043-01	58.00	2.161	.4259	555.8	.5433-03
59	.0000	.5000	754.00	.5237-01	.6343-01	.7093-01	57.90	3.032	.4269	557.0	.7639-03

DATE 05 MAR 78

AMES 3.5-211 1M48

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(RMBF08)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
59	.00000	.60000	755.00	.4180-01	.5070-01	.5675-01	57.51	2.404	.4306	561.9	.6105-03
59	.00000	.70000	756.00	.4406-01	.6557-01	.7338-01	57.56	3.112	.4301	561.3	.7895-03
59	.00000	.80000	757.00	.4191-01	.5086-01	.5693-01	57.41	2.406	.4316	563.2	.6123-03
59	.00000	.90000	758.00	.3456-01	.4186-01	.4681-01	57.89	2.000	.4270	557.1	.5041-03
59	.55.000	.22000	759.00	.6830-01	.8273-01	.9250-01	57.93	3.957	.4265	556.6	.9963-03
59	.55.000	.25000	760.00	.4763-01	.5758-01	.6430-01	58.48	2.786	.4213	549.7	.6936-03
59	.55.000	.27000	761.00	.6491-01	.7844-01	.8757-01	58.59	3.803	.4202	548.3	.9450-03
59	.55.000	.30000	762.00	.5592-01	.6769-01	.7564-01	58.13	3.251	.4247	554.2	.8152-03
59	.55.000	.32000	763.00	.7094-01	.8590-01	.9602-01	58.01	4.115	.4258	555.7	.1034-02
59	.55.000	.34000	764.00	.7325-01	.8870-01	.9916-01	58.00	4.248	.4259	555.8	.1068-02
59	.55.000	.36000	765.00	.9396-01	.1138	.1272	57.99	5.449	.4260	555.9	.1370-02
59	.55.000	.38000	766.00	.1359	.1645	.1839	58.00	7.881	.4259	555.7	.1961-02
59	.55.000	.40000	767.00	.1025	.1241	.1387	57.95	5.938	.4263	556.3	.1495-02
59	.55.000	.42000	768.00	.6500-01	.7873-01	.8803-01	57.92	3.765	.4267	556.8	.9481-03
59	.55.000	.45000	769.00	.4788-01	.5789-01	.6464-01	58.45	2.799	.4216	550.1	.6973-03
59	.55.000	.47000	770.00	.7169-01	.8664-01	.9674-01	58.51	4.194	.4210	549.3	.1044-02
59	.55.000	.49000	771.00	.5687-01	.6877-01	.7680-01	58.43	3.323	.4218	550.4	.8284-03
59	.55.000	.51000	772.00	.6900-01	.8351-01	.9333-01	58.12	4.010	.4247	554.2	.1006-02
59	.55.000	.53000	773.00	.8605-01	.1042	.1165	58.00	4.991	.4259	555.7	.1255-02
59	.55.000	.55000	774.00	.9630-01	.1166	.1304	57.95	5.581	.4264	556.4	.1405-02
59	.55.000	.57000	775.00	.1190	.1441	.1612	57.95	6.897	.4264	556.4	.1736-02
59	.55.000	.59000	776.00	.1459	.1767	.1975	57.96	8.455	.4263	556.3	.2128-02
59	.55.000	.61000	777.00	.1783	.2159	.2414	57.98	10.34	.4261	556.0	.2601-02
59	.55.000	.63000	778.00	.1932	.2340	.2616	57.95	11.20	.4264	556.4	.2818-02
59	.55.000	.65000	779.00	.2014	.2439	.2726	57.96	11.67	.4263	556.2	.2937-02
59	.55.000	.67000	780.00	.2027	.2455	.2744	57.97	11.75	.4262	556.1	.2956-02
59	.55.000	.69000	781.00	.2000	.2422	.2707	57.98	11.59	.4261	556.0	.2917-02
59	.55.000	.71000	782.00	.1855	.2247	.2512	57.96	10.76	.4263	556.2	.2706-02
59	.55.000	.73000	783.00	.1665	.2017	.2255	57.99	9.657	.4260	555.9	.2429-02
59	.55.000	.75000	784.00	.1389	.1682	.1880	57.98	8.052	.4261	556.0	.2025-02
59	.55.000	.77000	785.00	.1317	.1595	.1783	57.98	7.637	.4261	556.0	.1921-02
59	.55.000	.79000	786.00	.1196	.1448	.1619	57.97	6.932	.4262	556.1	.1744-02
59	.55.000	.81000	787.00	.9879-01	.1197	.1338	57.93	5.724	.4265	556.6	.1441-02
59	.55.000	.83000	788.00	.7934-01	.9610-01	.1075	57.90	4.593	.4269	557.0	.1157-02
59	.55.000	.85000	789.00	.3462-01	.4195-01	.4691-01	57.82	2.002	.4276	558.0	.5051-03
59	.55.000	.87000	790.00	.3519-01	.4271-01	.4782-01	57.34	2.018	.4322	564.0	.5142-03
59	.55.000	.89000	791.00	.3638-01	.4414-01	.4941-01	57.47	2.091	.4310	562.4	.5314-03
59	.55.000	.91000	792.00	.3868-01	.4695-01	.5258-01	57.31	2.217	.4325	564.4	.5653-03
59	.55.000	.93000	793.00	.7232-01	.8812-01	.9837-01	58.59	4.272	.4203	548.4	.1062-02
59	.55.000	.95000	794.00	.6875-01	.8312-01	.9282-01	58.46	4.019	.4215	550.0	.1001-02
59	.55.000	.97000	795.00	.1371	.1659	.1853	58.17	7.973	.4242	553.6	.1998-02
59	.55.000	.99000	796.00	.2373	.2873	.3211	58.06	13.78	.4253	555.0	.3460-02
59	.55.000	.99000	797.00	.2800	.3391	.3790	58.00	16.24	.4259	555.7	.4093-02

DATE 05 MAR 76

AMES 3.5-211 (H43

ARC3.5-211 (H48)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TH DEO. R	STN NO R=0.9
59	78.000	32500	799.00	.2738	.3316	.3707	58.00	15.88	.4259	555.7	3993-02
59	78.000	33000	800.00	.2727	.3302	.3691	57.99	15.81	.4260	555.9	3977-02
59	78.000	33500	801.00	.2720	.3294	.3682	57.98	15.77	.4261	556.0	3967-02
59	78.000	34000	802.00	.2702	.3272	.3658	58.01	15.67	.4258	555.7	3941-02
59	78.000	34500	803.00	.2693	.3261	.3645	58.01	15.62	.4258	555.6	3927-02
59	78.000	35000	804.00	.2684	.3251	.3632	58.01	14.40	.4260	555.9	3622-02
59	78.000	35500	805.00	.2166	.2823	.2932	57.97	12.55	.4260	556.1	3159-02
59	78.000	36000	806.00	.1996	.2418	.2703	57.99	11.58	.4260	555.9	2912-02
59	78.000	36500	807.00	.1885	.2283	.2552	57.97	10.93	.4261	556.1	2749-02
59	78.000	37000	808.00	.1859	.2209	.2246	57.98	9.619	.4261	556.0	2420-02
59	78.000	37500	809.00	.1821	.2142	.2060	57.92	8.809	.4267	556.8	2219-02
59	78.000	38000	810.00	.1828	.2109	.2060	57.93	7.694	.4266	556.7	1937-02
59	78.000	39000	811.00	.1659	.1609	.1799	57.93	5.594	.4270	557.1	1410-02
59	78.000	40000	812.00	.9653-01	.1171	.1309	57.89	4.041	.4275	557.8	1019-02
59	78.000	40000-01	812.00	.6987-01	.8465-01	.9467-01	57.84	29.68	.4023	556.0	6931-02
61	90.000	40000	812.00	.4623	.5552	.6172	64.21	31.05	.4023	559.2	7290-02
61	90.000	50000-01	986.00	.4856	.5836	.6492	63.95	29.15	.4058	560.9	6859-02
61	90.000	60000-01	987.00	.4567	.5492	.6110	63.81	28.85	.4063	561.6	6795-02
61	90.000	70000-01	988.00	.4524	.5441	.6054	63.76	40.00	.4064	561.7	9424-02
61	90.000	80000-01	989.00	.6274	.7545	.8396	63.75	21.96	.4066	562.0	5177-02
61	90.000	100000-00	990.00	.3446	.4145	.4612	63.73	11.93	.4081	564.0	2820-02
61	90.000	15000	991.00	.1876	.2258	.2513	63.56	4.205	.4250	554.6	1055-02
59	90.000	20100	813.00	.7239-01	.8762-01	.9793-01	58.10	4.205	.4238	553.1	8961-03
59	90.000	24000	814.00	.6143-01	.7440-01	.8313-01	58.22	3.580	.4202	548.3	7372-03
59	90.000	25000	815.00	.5064-01	.6119-01	.6831-01	58.60	2.967	.4193	547.2	1056-02
59	90.000	27000	816.00	.7256-01	.8765-01	.9783-01	58.69	4.258	.4211	549.5	2647-02
59	90.000	29000	817.00	.1818	.2198	.2454	58.50	10.64	.4234	552.5	5584-02
59	90.000	30000	818.00	.3832	.4636	.5180	58.26	22.33	.4238	553.0	5620-02
59	90.000	31000	819.00	.3956	.4666	.5213	58.22	22.45	.4241	553.4	4964-02
59	90.000	32000	820.00	.3405	.4121	.4605	58.19	19.82	.4243	553.7	4929-02
59	90.000	32500	821.00	.3382	.4093	.4573	58.17	19.67	.4243	553.6	5128-02
59	90.000	33000	822.00	.3518	.4259	.4759	58.17	20.47	.4244	553.8	6030-02
59	90.000	34000	824.00	.4137	.5007	.5595	58.16	24.06	.4243	553.7	6340-02
59	90.000	34500	825.00	.4349	.5264	.5882	58.13	25.30	.4246	554.1	8310-02
59	90.000	35000	826.00	.6112	.7398	.8267	58.13	35.53	.4246	554.1	8795-02
59	90.000	35500	828.00	.5920	.7154	.7985	60.63	35.90	.4199	566.0	4772-02
60	90.000	36000	829.00	.3212	.3881	.4332	60.61	19.47	.4201	566.3	3043-02
60	90.000	37000	830.00	.2082	.2516	.2808	60.61	12.62	.4203	566.5	2153-02
60	90.000	37500	831.00	.1449	.1751	.1955	60.59	8.781	.4203	566.5	1469-02
60	90.000	38000	832.00	.9387-01	.1195	.1334	60.59	5.991	.4204	566.7	9424-03
60	90.000	39000	833.00	.6343-01	.7665-01	.8557-01	60.57	3.842	.4208	567.2	9562-03
60	90.000	40000	834.00	.6434-01	.7777-01	.8683-01	60.53	3.895	.4215	568.2	4510-03
60	90.000	40000	835.00	.3034-01	.3569-01	.4097-01	60.45	1.834	.4284	577.5	6295-03
60	90.000	60000	836.00	.4226-01	.5122-01	.5730-01	59.71	2.523			

DATE 05 MAR 76

AMES 3.5-211 1448

ARC3.5-211(1448)OTS/NIPPLE/P/TRIP

EXT TANK

STN NO R-0.9	TH DEG. R	HW/MT	ODOT BTU/ FT2SEC	OREF BTU/ FT2SEC	H/HREF R=0.85	H/HREF R=0.9	H/HREF R=1.0	TC NO	X/L	PHI	RUN NUMBER
6246-03	575.3	4267	2.513	59.89	.5682-01	.5082-01	.4195-01	837.00	.7000	90.000	50
1200-02	577.8	4286	4.808	59.69	.1092	.9764-01	.8055-01	838.00	.8000	90.000	50
8924-03	566.4	4201	9.963	60.60	.2218	.1987	.1644	839.00	.9000	90.000	50
7169-03	562.3	4171	3.663	60.93	.8095-01	.7257-01	.6012-01	840.00	.2300	112.50	50
4359-03	554.5	4113	2.978	61.55	.6492-01	.5828-01	.4838-01	841.00	.2500	112.50	50
1338-02	550.3	4082	1.822	61.89	.3944-01	.3543-01	.2944-01	842.00	.2700	112.50	50
3258-02	558.9	4146	5.518	61.20	.1212	.1088	.9017-01	843.00	.3000	112.50	50
3140-02	560.8	4160	13.40	61.05	.2954	.2649	.2195	844.00	.3300	112.50	50
2360-02	561.0	4161	12.92	61.04	.2848	.2553	.2116	845.00	.3500	112.50	50
1063-02	560.7	4159	9.711	61.06	.2140	.1919	.1591	846.00	.3700	112.50	50
6092-03	560.6	4158	4.376	61.07	.9641-01	.8645-01	.7165-01	847.00	.4000	112.50	50
4926-03	561.5	4165	2.504	61.00	.5525-01	.4954-01	.4105-01	848.00	.4200	112.50	50
4822-03	559.7	4152	2.030	61.13	.4466-01	.4005-01	.3320-01	849.00	.4500	112.50	50
5016-03	558.7	4144	1.990	61.22	.4370-01	.3920-01	.3251-01	850.00	.4700	112.50	50
4133-03	566.8	4205	2.045	60.48	.4554-01	.4080-01	.3376-01	851.00	.5000	112.50	50
3727-03	567.9	4213	1.682	60.75	.3753-01	.3361-01	.2780-01	852.00	.5200	112.50	50
1681-02	564.5	4187	3.979	60.16	.6827-01	.7910-01	.6549-01	853.00	.5500	112.50	50
1423-02	559.4	4150	6.930	61.16	.1524	.1367	.1133	854.00	.5700	112.50	50
1442-02	566.6	4203	5.802	60.59	.1292	.1157	.9577-01	855.00	.6000	112.50	50
1669-02	559.5	4150	5.842	60.91	.1307	.1172	.9717-01	856.00	.6200	112.50	50
1557-02	562.5	4173	6.847	60.91	.1514	.1357	.1124	857.00	.6400	112.50	50
1239-02	562.6	4173	6.430	60.91	.1422	.1274	.1056	858.00	.6600	112.50	50
1103-02	562.7	4174	5.080	60.89	.1124	.1007	.8343-01	859.00	.6800	112.50	50
1028-02	562.9	4176	4.522	60.88	.1000	.8967-01	.7427-01	860.00	.7000	112.50	50
1057-02	561.8	4173	4.218	60.91	.9327-01	.8361-01	.6926-01	861.00	.7200	112.50	50
1257-02	559.9	4168	4.342	60.97	.9588-01	.8596-01	.7122-01	862.00	.7400	112.50	50
2269-02	557.3	4154	5.178	61.12	.1139	.1022	.8471-01	863.00	.7600	112.50	50
1336-02	561.3	4163	5.139	61.33	.1126	.1010	.8380-01	864.00	.7800	112.50	50
1295-02	563.0	4177	9.323	61.01	.2057	.1844	.1528	865.00	.8000	112.50	50
1204-02	561.9	4176	5.476	60.87	.1212	.1086	.8996-01	866.00	.8200	112.50	50
1440-02	561.2	4168	5.267	60.88	.1165	.1045	.8652-01	867.00	.8400	112.50	50
7344-02	554.3	4163	4.944	60.96	.1092	.9797-01	.8109-01	868.00	.8600	112.50	50
5865-02	557.3	4112	5.922	61.02	.1306	.1171	.9705-01	869.00	.8800	112.50	50
6318-02	558.4	4134	30.51	61.33	.6650	.5970	.4956	870.00	.9000	112.50	50
6219-02	558.1	4141	23.46	61.25	.6239	.5598	.4644	871.00	.9200	112.50	50
2475-02	557.9	4142	26.62	61.24	.5942	.5240	.4346	872.00	.9400	112.50	50
1362-02	559.1	4140	25.69	61.27	.5726	.5137	.4260	873.00	.9600	112.50	50
1064-02	560.7	4139	17.53	61.28	.5635	.5056	.4193	874.00	.9800	112.50	50
1537-02	559.9	4148	5.606	61.18	.3845	.3450	.2861	875.00	.9900	112.50	50
	559.9	4153	4.383	61.05	.1235	.1108	.1569	876.00	.9900	112.50	50
	559.9	4153	6.334	61.12	.9645-01	.8650-01	.7171-01	877.00	.9900	112.50	50
	559.9	4153	6.334	61.12	.1394	.1250	.1036	878.00	.9900	112.50	50

DATE 05 MAR 76

AMES 3.5-211 INH

ARC3.5-211(1448)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
60	135.00	.50000	880.00	.7339-01	.8845-01	.9857-01	61.39	4.505	.4128	556.5	.1088-02
60	135.00	.55000	881.00	.7643-01	.9208-01	.1026	61.50	4.700	.4118	555.1	.1133-02
60	135.00	.60000	882.00	.8548-01	.1080	.1205	60.97	5.456	.4167	561.7	.1328-02
60	135.00	.65000	883.00	.1058	.1277	.1425	60.89	6.441	.4175	562.8	.1570-02
60	135.00	.70000	884.00	.8460-01	.1021	.1138	61.09	5.169	.4156	560.2	.1255-02
60	135.00	.75000	885.00	.7740-01	.9329-01	.1040	61.38	4.751	.4129	556.6	.1148-02
60	135.00	.80000	886.00	.7523-01	.9079-01	.1013	61.01	4.589	.4164	561.3	.1117-02
60	135.00	.84000	887.00	.1242	.1499	.1671	61.10	7.590	.4156	560.2	.1843-02
60	135.00	.85000	888.00	.1011	.1219	.1360	61.08	6.174	.4157	560.4	.1500-02
60	135.00	.86000	889.00	.8109-01	.9783-01	.1091	61.10	4.955	.4155	560.1	.1203-02
60	135.00	.87000	890.00	.6834-01	.8245-01	.9195-01	61.07	4.173	.4158	560.5	.1014-02
60	135.00	.88000	891.00	.7095-01	.8548-01	.9532-01	61.08	4.328	.4157	560.4	.1051-02
60	135.00	.89000	892.00	.7340-01	.8854-01	.9872-01	61.14	4.488	.4152	559.7	.1089-02
60	135.00	.90000	893.00	.9506-01	.1146	.1277	61.28	5.825	.4138	557.9	.1410-02
60	135.00	.91000	894.00	.9675-01	.1166	.1299	61.45	5.945	.4123	555.8	.1434-02
60	135.00	.92000	895.00	.1145	.1539	.1539	61.13	6.997	.4132	559.7	.1698-02
60	135.00	.93000	896.00	.7762-01	.9372-01	.1046	60.84	4.722	.4180	563.4	.1153-02
60	135.00	.94000	897.00	.9738-01	.1174	.1309	61.20	5.960	.4146	559.0	.1445-02
60	142.30	.42000	898.00	.1949	.2350	.2620	61.25	11.94	.4139	558.3	.2891-02
60	142.30	.43500	899.00	.1578	.1902	.2120	61.27	9.666	.4122	555.6	.2340-02
60	142.30	.45000	900.00	.6379-01	.7687-01	.5665-01	61.46	3.921	.4152	559.7	.9456-03
60	142.30	.60000	901.00	.1354	.1633	.1821	61.14	8.277	.4141	559.2	.2008-02
60	142.30	.70000	902.00	.1026	.1237	.1379	61.26	6.284	.4057	558.2	.1521-02
60	142.30	.93500	913.00	.4209	.5061	.5631	63.82	26.87	.4048	560.8	.6322-02
61	154.93	.94500	914.00	.2122	.2550	.2837	63.93	13.57	.4059	559.5	.3186-02
61	154.93	.70000-01	919.00	.3672	.4416	.4913	63.80	23.43	.4060	561.1	.5515-02
61	157.50	.80000-01	919.00	.3042	.3657	.4069	63.83	19.42	.4057	560.6	.4568-02
61	157.50	.10000-00	920.00	.2548	.3063	.3408	63.87	16.28	.4053	560.2	.3826-02
61	157.50	.20000	922.00	.7887-01	.9485-01	.1055	63.75	5.028	.4064	561.7	.1185-02
61	157.50	.42000	923.00	.9430-01	.1141	.1269	63.91	6.065	.4050	559.7	.1425-02
61	157.50	.43500	924.00	.1033	.1242	.1381	63.89	6.599	.4051	559.9	.1551-02
61	157.50	.85000	926.00	.6766-01	.8127-01	.9035-01	64.16	4.341	.4027	556.5	.1015-02
61	157.50	.66000	927.00	.6961-01	.8361-01	.9297-01	64.13	4.464	.4030	556.9	.1045-02
61	157.50	.87000	928.00	.7197-01	.8645-01	.9612-01	64.12	4.615	.4031	557.1	.1013-02
61	157.50	.63000	929.00	.6753-01	.8113-01	.9021-01	64.10	4.329	.4033	557.4	.1080-02
61	157.50	.83000	930.00	.7531-01	.9163-01	.1019	64.11	4.892	.4032	557.2	.1145-02
61	157.50	.90000	931.00	.9055-01	.1088	.1209	64.20	5.814	.4024	556.1	.1359-02
61	157.50	.91000	932.00	.9473-01	.1137	.1264	64.34	6.099	.4011	554.3	.1421-02
61	157.50	.92600	933.00	.1961	.2355	.2620	64.04	6.099	.4038	558.1	.2943-02
61	157.50	.41500	934.00	.6989-01	.1069	.1189	63.87	5.677	.4053	560.2	.1335-02
61	163.12	.42000	935.00	.1011	.1216	.1352	63.82	6.452	.4058	560.8	.1519-02
61	163.12	.43000	937.00	.1247	.1500	.1670	63.71	7.948	.4068	562.2	.1874-02
61	163.12	.44000	939.00	.1842	.2215	.2465	63.73	11.74	.4065	561.9	.2765-02

DATE 05 MAR 76

AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	4/HREF R=0.85	OREF BTU/ FT2SEC	OOT BTU/ FT2SEC	HA/HT	TH DEO. R	STN NO R=0.9
61	163.12	44500	939.00	.1996	.2400	.2670	63.84	12.74	.4056	560.6	.2997-02
61	163.12	45000	940.00	.1788	.2149	.2391	63.87	11.42	.4053	560.2	.2684-02
51	163.12	50000	941.00	.1448	.1739	.1934	64.09	9.284	.4033	557.4	.2173-02
61	163.12	60000	942.00	.1195	.1436	.1598	64.94	7.648	.4047	559.4	.1794-02
61	163.12	70000	943.00	.8595-01	.1033	.1148	64.06	5.506	.4036	557.8	.1290-02
61	163.12	80000	944.00	.7794-01	.9364-01	.1041	64.08	4.994	.4034	557.6	.1170-02
61	168.00	35000	945.00	.4270-01	.5133-01	.5710-01	63.90	2.729	.4050	559.8	.6411-03
61	168.00	36000	946.00	.4208-01	.5058-01	.5626-01	63.91	2.689	.4050	559.7	.6318-03
61	168.00	37000	947.00	.3592-01	.4798-01	.5337-01	63.92	2.552	.4049	559.6	.5934-03
61	168.00	37500	948.00	.5253-01	.6315-01	.7024-01	63.89	3.356	.4051	559.9	.7887-03
61	168.00	38000	950.00	.6300-01	.7572-01	.8423-01	63.91	4.026	.4049	559.6	.5458-03
61	168.00	39000	951.00	.6712-01	.8068-01	.8975-01	63.88	4.288	.4052	560.0	.1008-02
61	168.00	39500	952.00	.6328-01	.7608-01	.8463-01	63.85	4.042	.4053	560.1	.9502-03
61	168.00	40000	953.00	.6734-01	.8096-01	.9007-01	63.84	4.085	.4055	560.4	.1011-02
61	168.00	40500	954.00	.6832-01	.8212-01	.9134-01	63.95	4.299	.4046	559.2	.1026-02
61	168.00	41000	955.00	.9395-01	.1130	.1257	63.79	5.993	.4060	561.1	.1411-02
61	168.00	41500	956.00	.1043	.1254	.1396	63.78	6.652	.4062	561.4	.1567-02
61	168.00	42000	957.00	.1049	.1261	.1402	63.88	6.699	.4053	560.1	.1575-02
61	168.00	42500	958.00	.1769	.2127	.2367	63.75	11.28	.4064	561.7	.2657-02
51	168.00	43000	959.00	.1826	.2195	.2443	63.76	11.64	.4063	561.5	.2742-02
51	168.00	43500	960.00	.2027	.2438	.2712	63.84	12.94	.4056	560.6	.3045-02
51	168.00	44000	961.00	.1930	.2320	.2580	63.90	12.33	.4051	559.8	.2698-02
51	168.00	44500	962.00	.1796	.2158	.2400	63.94	11.48	.4047	559.3	.2396-02
51	168.00	45000	963.00	.1680	.2019	.2246	63.95	10.75	.4046	559.2	.2532-02
51	168.00	46000	964.00	.1487	.1786	.1987	63.98	9.511	.4043	558.8	.2231-02
51	168.00	47000	965.00	.1294	.1555	.1729	64.02	8.282	.4040	558.4	.1942-02
51	168.00	48000	966.00	.8051-01	.9672-01	.1076	64.08	5.159	.4034	557.5	.1208-02
51	168.00	49000	967.00	.6939-01	.8333-01	.9263-01	64.21	4.456	.4022	555.9	.1041-02
51	168.00	50000	968.00	.7359-01	.8838-01	.9826-01	64.19	4.724	.4024	556.3	.1104-02
51	168.00	51000	969.00	.6991-01	.8397-01	.9335-01	64.18	4.487	.4025	556.3	.1049-02
61	169.00	87000	970.00	.6400-01	.7687-01	.8546-01	64.16	4.106	.4027	556.6	.8603-03
51	169.00	88000	971.00	.7367-01	.8847-01	.9835-01	64.21	4.730	.4023	555.0	.1105-02
51	169.00	89000	972.00	.1311	.1574	.1750	64.32	8.435	.4012	554.5	.1567-02
51	169.00	90000	973.00	.1590	.2028	.2253	64.47	10.89	.3999	552.9	.1234-02
51	169.00	91000	974.00	.1785	.2144	.2384	64.11	11.44	.4031	557.1	.1042-02
51	169.00	92000	975.00	.1263	.1522	.1694	63.78	8.075	.4061	561.3	.1302-02
51	169.00	93000	976.00	.1328	.1597	.1776	63.85	8.481	.4055	560.5	.1205-02
51	169.00	94000	977.00	.4880	.5862	.6519	64.07	31.27	.4035	557.6	.7203-02
51	180.00	30000-01	983.00	.6307	.7575	.8421	64.18	40.48	.4026	556.4	.5454-02
51	180.00	30000-01	984.00	.4997	.6028	.6721	61.48	30.72	.4153	564.2	.1647-02
57	180.00	40000-01	600.00	.4323	.5218	.5821	61.29	26.49	.4171	566.5	.6461-02
57	180.00	50000-01	601.00	.3945	.4762	.5313	61.22	24.15	.4177	567.4	.5997-02
57	180.00	60000-01	602.00								

DATE 05 MAR 76

AMES 3.5-211 1H48

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(RMSF03)

EXT TANK

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HWT	TH DEG. R	STN NO R=0.9
57	180.00	.7000-01	603.00	.3709	.4479	.4997	61.18	22.69	.4180	567.9	.5545-02
57	180.00	.8000-01	604.00	.3822	.4615	.5148	61.21	23.39	.4178	567.6	.5714-02
57	180.00	.10000-00	605.00	.2296	.2772	.3093	61.20	14.05	.4179	567.7	.3432-02
57	180.00	.15000	606.00	.1356	.1637	.1827	61.22	8.303	.4177	567.4	.2027-02
57	180.00	.20000	607.00	.6748-01	.8149-01	.9094-01	61.13	4.125	.4185	568.5	.1009-02
57	180.00	.21000	608.00	.5467-01	.6602-01	.7366-01	61.16	3.344	.4182	568.1	.8174-03
57	180.00	.22000	609.00	.4721-01	.5701-01	.6361-01	61.16	2.887	.4183	568.2	.7058-03
57	180.00	.30000	610.00	.3886-01	.4688-01	.5228-01	61.44	2.388	.4157	564.6	.5806-03
57	180.00	.35000	611.00	.3592-01	.4324-01	.4824-01	61.25	2.194	.4174	567.0	.5354-03
57	180.00	.36000	612.00	.3219-01	.3886-01	.4336-01	61.22	1.971	.4177	567.4	.4812-03
57	180.00	.37000	613.00	.6857-01	.8279-01	.9237-01	61.21	4.197	.4178	567.6	.1025-02
57	180.00	.37500	614.00	.5926-01	.7156-01	.7984-01	61.17	4.199	.4181	567.8	.1026-02
57	180.00	.38000	615.00	.5449-01	.6579-01	.7341-01	61.14	3.625	.4184	568.4	.8145-03
57	180.00	.39500	616.00	.5430-01	.6559-01	.7319-01	61.12	3.319	.4187	569.7	.8120-03
57	180.00	.39000	617.00	.5344-01	.6454-01	.7201-01	61.13	3.266	.4186	568.6	.7930-03
57	180.00	.40000	618.00	.5483-01	.6629-01	.7398-01	61.10	3.354	.4188	568.9	.8207-03
57	180.00	.40500	620.00	.6257-01	.7557-01	.8434-01	61.08	3.822	.4190	569.2	.9357-03
57	180.00	.41000	621.00	.8474-01	.1024	.1142	61.08	5.176	.4190	569.2	.1267-02
57	180.00	.42500	622.00	.1050	.1281	.1430	61.03	6.472	.4194	569.8	.1526-02
57	180.00	.43000	624.00	.1495	.1807	.2017	61.02	9.125	.4196	569.9	.2237-02
57	180.00	.43000	625.00	.1679	.2029	.2264	61.03	10.25	.4195	569.8	.2512-02
57	180.00	.44000	626.00	.2331	.2815	.3142	61.07	14.23	.4191	569.3	.3465-02
57	180.00	.44500	627.00	.2662	.3215	.3588	61.09	16.26	.4189	569.0	.3381-02
57	180.00	.45000	628.00	.2702	.3263	.3641	61.13	16.52	.4186	568.6	.4040-02
57	180.00	.45500	629.00	.2334	.2832	.3227	61.15	14.64	.4184	568.3	.3580-02
57	180.00	.46000	630.00	.1961	.2359	.2643	61.16	12.00	.4183	568.2	.2333-02
57	180.00	.47000	631.00	.1360	.1643	.1833	61.20	8.326	.4179	567.7	.2034-02
57	180.00	.48000	632.00	.5939-01	.1188	.1325	61.26	6.028	.4173	565.9	.1471-02
57	180.00	.49000	633.00	.6759-01	.8157-01	.9099-01	61.34	4.146	.4166	565.9	.1010-02
57	180.00	.50000	634.00	.6274-01	.7568-01	.8438-01	61.51	3.859	.4150	563.8	.9372-03
57	180.00	.50000	635.00	.9296-01	.1097	.1222	61.68	5.610	.4135	561.7	.1358-02
57	180.00	.60000	636.00	.9736-01	.1175	.1311	61.28	5.965	.4132	566.7	.1455-02
57	180.00	.60000	637.00	.7529-01	.9053-01	.1011	61.28	5.074	.4171	566.6	.1122-02
57	180.00	.70000	638.00	.8251-01	.9952-01	.1110	61.50	5.108	.4151	563.9	.1232-02
57	180.00	.80000	639.00	.5743-01	.6924-01	.1111	61.76	3.540	.4127	562.6	.1255-02
57	180.00	.80000	640.00	.6261-01	.7548-01	.8413-01	61.68	3.862	.4136	562.1	.5575-03
57	180.00	.85000	641.00	.6261-01	.7548-01	.8413-01	61.68	3.862	.4135	561.7	.9348-03
57	180.00	.85000	642.00	.5733-01	.6935-01	.7719-01	61.66	3.693	.4135	561.9	.6941-03
57	180.00	.87000	643.00	.5733-01	.6935-01	.7730-01	61.66	3.547	.4136	561.9	.6569-03
57	180.00	.89000	644.00	.7918-01	.9546-01	.1064	61.67	4.883	.4135	561.9	.1182-02
57	180.00	.89000	645.00	.1597	.1925	.2145	61.76	9.863	.4127	560.7	.2394-02
57	180.00	.90000	646.00	.1983	.2399	.2661	61.92	12.28	.4113	558.7	.2959-02

ANES 3.5-211 1443

DATE 05 MAR 76

EXT TANK

ARC3.5-211(1448)OTS/NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/AREF R=1.0	H/AREF R=0.9	H/AREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEO. R	STN NO R=0.9
57	180.00	.92600	648.00	.1788	.2155	.2401	61.81	11.05	.4123	560.1	-2669-02
57	180.00	.92600	649.00	.3826-01	.4615-01	.5145-01	61.51	2.353	.4150	563.8	-5715-03
57	191.25	.35000	650.00	.3259-01	.3934-01	.4389-01	61.23	1.995	.4176	567.3	-4871-03
57	191.25	.36000	651.00	.6085-01	.7346-01	.8196-01	61.28	3.726	.4175	567.2	-9096-03
57	191.25	.37000	652.00	.6236-01	.7528-01	.8397-01	61.24	3.822	.4171	566.6	-9321-03
57	191.25	.37500	653.00	.5302-01	.6400-01	.7138-01	61.31	3.251	.4168	566.2	-7924-03
57	191.25	.39000	654.00	.5020-01	.6090-01	.6816-01	59.81	3.003	.4307	585.0	-7535-03
57	191.25	.39500	655.00	.5026-01	.6066-01	.6766-01	61.33	3.083	.4167	585.0	-7511-03
57	191.25	.39000	656.00	.5075-01	.6125-01	.6832-01	61.31	3.111	.4169	566.3	-7584-03
57	191.25	.39500	657.00	.5399-01	.6517-01	.7270-01	61.30	3.310	.4170	566.5	-6070-03
57	191.25	.40000	658.00	.5858-01	.7011-01	.7889-01	61.27	3.589	.4173	566.8	-8756-03
57	191.25	.40500	659.00	.6507-01	.7654-01	.8761-01	61.29	3.988	.4171	566.6	-9725-03
57	191.25	.41000	661.00	.7275-01	.8782-01	.9796-01	61.29	4.459	.4171	566.6	-1087-02
57	191.25	.42000	662.00	.1040	.1255	.1400	61.28	6.372	.4172	566.8	-1554-02
57	191.25	.43000	663.00	.1190	.1437	.1603	61.27	7.294	.4172	566.8	-1779-02
57	191.25	.44000	664.00	.1568	.2013	.2245	61.33	10.23	.4167	566.1	-2493-02
57	191.25	.45000	665.00	.1918	.2315	.2582	61.36	11.77	.4164	565.7	-2828-02
57	191.25	.46000	666.00	.1384	.1670	.1863	61.36	8.492	.4164	565.6	-2088-02
57	191.25	.47000	667.00	.1489	.1797	.2004	61.34	9.132	.4166	565.0	-2225-02
57	191.25	.48000	668.00	.1555	.1876	.2092	61.40	9.545	.4161	565.2	-2335-02
57	191.25	.49000	669.00	.1565	.1888	.2106	61.41	9.610	.4160	565.1	-2358-02
57	191.25	.50000	670.00	.1526	.1817	.2026	61.43	9.250	.4158	564.8	-2363-02
57	191.25	.51000	671.00	.1369	.1622	.1841	61.54	8.427	.4147	563.4	-2074-02
57	191.25	.52000	672.00	.2315	.2429	.2707	61.71	12.43	.4132	561.3	-2079-02
57	191.25	.53000	673.00	.1100	.1327	.1479	61.54	6.770	.4147	563.4	-1847-02
57	191.25	.54000	674.00	.1072	.1292	.1439	61.75	6.618	.4128	560.7	-1847-02
57	191.25	.55000	675.00	.6994-01	.7803-01	.8677-01	62.55	4.062	.4037	545.2	-5633-03
57	191.25	.56000	676.00	.5128-01	.6162-01	.6952-01	62.55	3.258	.4037	545.3	-5633-03
57	191.25	.57000	677.00	.7019-01	.8434-01	.9379-01	62.55	4.391	.4037	545.2	-5633-03
57	191.25	.58000	678.00	.9491-01	.1140	.1268	62.55	5.936	.4038	545.3	-5633-03
57	191.25	.59000	679.00	.1208	.1451	.1614	62.60	7.563	.4033	544.7	-1457-02
57	191.25	.60000	680.00	.1493	.1793	.1934	62.67	9.357	.4026	543.8	-1457-02
57	191.25	.61000	681.00	.1193	.1392	.1547	62.78	7.277	.4016	543.8	-1457-02
57	191.25	.62000	682.00	.1095	.1315	.1463	62.60	6.854	.4033	544.7	-1457-02
57	191.25	.63000	683.00	.5593-01	.6731-01	.7488-01	62.36	3.492	.4033	547.7	-5633-03
57	191.25	.64000	684.00	.3337-01	.4084-01	.4544-01	62.29	2.116	.4062	547.7	-5633-03
57	191.25	.65000	685.00	.3281-01	.3945-01	.4390-01	62.30	2.044	.4061	548.5	-5633-03
57	191.25	.66000	686.00	.3114-01	.3624-01	.4032-01	62.30	1.878	.4061	548.5	-5633-03
57	191.25	.67000	687.00	.7191-01	.8647-01	.9621-01	62.30	4.480	.4061	548.5	-5633-03
57	191.25	.68000	688.00	.6493-01	.7692-01	.8556-01	62.43	3.995	.4061	548.5	-5633-03
57	191.25	.69000	689.00	.8042-01	.9666-01	.1075	62.45	5.022	.4061	548.5	-5633-03
57	191.25	.70000	690.00	.2791	.3351	.3725	62.73	17.50	.4021	543.1	-4138-02
57	191.25	.71000	691.00	.1243	.1493	.1660	62.63	7.785	.4030	544.3	-1838-02
57	191.25	.72000	692.00								



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## EXT TANK

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HWT	TN DEG. R	STN NO R=0.9
58	197.00	.70000	693.00	.2299	.2761	.3059	62.68	14.41	.4025	543.7	.3399-02
58	197.00	.80000	694.00	.5638-01	.6772-01	.7528-01	62.67	3.534	.4026	543.8	.6336-03
58	197.00	.87000	695.00	.7890-01	.9477-01	.1054	62.64	4.942	.4028	544.2	.1167-02
58	197.00	.92600	696.00	.1198	.1439	.1600	62.65	7.508	.4081	544.0	.1772-02
58	209.80	.15000-01	697.00	.7346-01	.8840-01	.9840-01	62.08	4.561	.4031	551.1	.1038-02
58	209.80	.30000-01	698.00	.4404	.5230	.5882	62.62	27.58	.4033	544.4	.6512-02
58	209.80	.50000-01	699.00	.4738	.5691	.6328	62.60	29.66	.4031	544.7	.7006-02
58	209.80	.70000-01	700.00	.4680	.5622	.6251	62.62	29.31	.4031	544.4	.6921-02
58	209.80	.10000+00	701.00	.3621	.4349	.4834	62.69	22.70	.4025	543.6	.5354-02
58	209.80	.15000	702.00	.1454	.1746	.1941	62.68	9.113	.4025	543.7	.2150-02
58	209.80	.20000	703.00	.6993-01	.8290-01	.9219-01	62.54	4.315	.4039	545.4	.1020-02
58	209.80	.30000	704.00	.2824-01	.3394-01	.3776-01	62.43	1.763	.4049	546.8	.4179-03
58	209.80	.35000	705.00	.4806-01	.5776-01	.6429-01	62.31	2.934	.4050	548.3	.7112-03
58	209.80	.37500	706.00	.8760-01	.1053	.1171	62.49	5.474	.4043	546.1	.1296-02
58	209.80	.50000	707.00	.1395	.1675	.1862	62.80	8.764	.4014	542.2	.2053-02
58	209.80	.60000	708.00	.7501-01	.9009-01	.1002	62.68	4.702	.4026	543.7	.1109-02
58	209.80	.70000	709.00	.9185-01	.1103	.1226	62.79	5.769	.4015	542.3	.1358-02
58	209.80	.80000	710.00	.3045-01	.3656-01	.4063-01	62.81	1.913	.4014	542.1	.4501-03
58	209.80	.97000	711.00	.3748-01	.4500-01	.5001-01	62.81	2.354	.4014	542.1	.5540-03
58	209.80	.92600	712.00	.8054-01	.9570-01	.1075	62.79	5.058	.4015	542.3	.1191-02
58	217.70	.15000-01	713.00	.7777-01	.9360-01	.1042	62.03	4.824	.4085	551.8	.1152-02
58	217.70	.30000-01	714.00	.4104	.4930	.5481	62.65	25.71	.4028	544.0	.6052-02
58	217.70	.50000-01	715.00	.4489	.5393	.5998	62.53	28.07	.4040	545.6	.6639-02
58	217.70	.70000-01	716.00	.5927	.7000	.7783	62.61	36.49	.4032	544.5	.8617-02
58	217.70	.10000+00	717.00	.2495	.2997	.3332	62.64	15.64	.4027	543.9	.2957-02
58	217.70	.15000	718.00	.1932	.2402	.2670	62.62	12.52	.4039	545.5	.3690-02
58	217.70	.20000	719.00	.6396-01	.7696-01	.8547-01	62.53	4.000	.4039	545.5	.9461-03
58	217.70	.30000	720.00	.2946-01	.3541-01	.3938-01	62.44	1.839	.4048	546.7	.4338-03
58	217.70	.35000	721.00	.4899-01	.5891-01	.6555-01	62.28	3.051	.4053	548.7	.7251-03
58	217.70	.37500	722.00	.6207-01	.7461-01	.8300-01	62.39	3.872	.4022	547.3	.9184-03
58	217.70	.50000	723.00	.9883-01	.1187	.1320	62.66	6.193	.4028	544.0	.1461-02
58	217.70	.60000	724.00	.6632-01	.7957-01	.8859-01	62.59	4.151	.4034	544.8	.5938-03
58	217.70	.70000	725.00	.5482-01	.6583-01	.7319-01	62.70	3.437	.4024	543.4	.8155-03
58	217.70	.80000	726.00	.2361-01	.2842-01	.3159-01	62.75	1.485	.4033	542.9	.3459-03
58	217.70	.87500	727.00	.3501-01	.4202-01	.4670-01	62.87	2.201	.4022	541.3	.5173-03
58	217.70	.92600	728.00	.9050-01	.1086	.1207	62.83	5.695	.4012	541.8	.1533-03

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EXT TANK

ARC3.5-211(1H-8)OTS/NIPPLE/P/TRIP

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
62	-5.000	-5.000	5.300	4.705	406.5	1354.	331.3	5345	208.7	.2150-03	3752.	.1750-01
63	-5.000	-5.000	5.300	4.821	405.9	1332.	325.8	5345	205.1	.2188-03	3721.	.1750-01
64	-5.000	-5.000	5.300	4.947	405.6	1310.	320.1	5347	201.6	.2226-03	3688.	.1750-01
65	-5.000	-5.000	5.300	4.807	405.6	1334.	326.2	5340	205.4	.2181-03	3723.	.1750-01
66	-5.000	-5.000	5.300	4.781	401.9	1331.	325.4	5292	204.9	.2167-03	3719.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
65	.00000	.30000-02	730.00	.3179	.3855	.4315	60.03	19.08	.4301	584.8	.4765-02
65	.00000	.10000-01	731.00	.5293-01	.6411-01	.7168-01	60.41	3.198	.4266	580.0	.7924-03
65	.00000	.15000-01	732.00	.2280-01	.2759-01	.3093-01	60.72	1.385	.4238	576.2	.3411-03
65	.00000	.25000-01	734.00	.2215	.2675	.2984	61.30	13.58	.4184	568.9	.3308-02
65	.00000	.30000-01	735.00	.3424	.4135	.4613	61.38	21.02	.4177	568.0	.5113-02
65	.00000	.40000-01	737.00	.3446	.4163	.4648	61.14	21.07	.4200	571.0	.5148-02
65	.00000	.45000-01	738.00	.3471	.4196	.4685	61.02	21.18	.4210	572.4	.5188-02
65	.00000	.50000-01	739.00	.3478	.3964	.4428	60.85	19.95	.4226	574.5	.4901-02
65	.00000	.60000-01	740.00	.2839	.3433	.3833	60.92	17.29	.4219	573.7	.4244-02
65	.00000	.70000-01	741.00	.2753	.3329	.3718	60.94	16.78	.4218	573.4	.4116-02
65	.00000	.80000-01	742.00	.1757	.2125	.2372	60.99	10.72	.4214	572.9	.2627-02
65	.00000	.10000-00	743.00	.1761	.1524	.1702	61.01	7.692	.4212	572.6	.1885-02
65	.00000	.12500	744.00	.9271-01	.1157	.1292	60.98	5.837	.4214	572.9	.1431-02
65	.00000	.15000	745.00	.5616-01	.6791-01	.7584-01	60.90	3.420	.4232	574.0	.8396-03
65	.00000	.17500	746.00	.4043-01	.4891-01	.5464-01	60.78	2.457	.4236	575.4	.6046-03
65	.00000	.20000	747.00	.2842-01	.3439-01	.3842-01	60.74	1.726	.4236	576.0	.4251-03
65	.00000	.21500	748.00	.2155-01	.2608-01	.2911-01	60.83	1.311	.4228	574.8	.3222-03
65	.00000	.23000	749.00	.1949-01	.2355-01	.2629-01	61.10	1.190	.4203	571.5	.2912-03
65	.00000	.24000	750.00	.1450-01	.1749-01	.1949-01	61.74	.8953	.4144	563.4	.2163-03
65	.00000	.25000	751.00	.1751-01	.2118-01	.2385-01	60.89	1.066	.4223	574.1	.2619-03
65	.00000	.30000	752.00	.2133-01	.2584-01	.2890-01	59.13	1.261	.4275	570.4	.3157-03
64	.00000	.35000	753.00	.3291-01	.3989-01	.4461-01	59.06	1.943	.4282	571.3	.4872-03
64	.00000	.40000	754.00	.3961-01	.4802-01	.5372-01	58.99	2.337	.4289	572.2	.5866-03

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(RMBF09)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	EXT TANK OOT BTU/ FT2SEC	MM/HT	TH DEG. R	STN NO R=0.9
64	.00000	.60000	755.00	.3707-01	.4500-01	.5040-01	58.58	2.171	.4328	577.4	.5497-03
64	.00000	.70000	756.00	.2905-01	.3527-01	.3949-01	58.61	1.703	.4325	577.0	.4308-03
64	.00000	.80000	757.00	.2352-01	.2857-01	.3201-01	58.42	1.374	.4342	579.3	.3490-03
64	.00000	.90000	758.00	.3031-01	.3677-01	.4116-01	58.79	1.782	.4308	574.7	.4492-03
64	.00000	.20000	759.00	.5184-01	.6285-01	.7031-01	59.00	3.059	.4298	572.1	.7678-03
64	.55.000	.25000	760.00	.3719-01	.4500-01	.5029-01	59.51	2.213	.4240	565.7	.5498-03
64	.55.000	.27000	761.00	.4912-01	.5941-01	.6637-01	59.61	2.928	.4230	564.4	.7260-03
64	.55.000	.30000	762.00	.4355-01	.5276-01	.5900-01	59.18	2.577	.4271	569.9	.6446-03
64	.55.000	.32000	763.00	.5845-01	.7084-01	.7924-01	59.06	3.452	.4282	571.3	.8655-03
64	.55.000	.34000	764.00	.5223-01	.6330-01	.7080-01	59.06	3.085	.4282	571.3	.7733-03
64	.55.000	.36000	765.00	.9384-01	.1137	.1272	59.06	5.542	.4281	571.2	.1261-02
64	.55.000	.38000	766.00	.8518-01	.1032	.1155	59.07	5.032	.4281	571.2	.1261-02
64	.55.000	.40000	767.00	.6122-01	.7420-01	.8300-01	59.03	3.613	.4286	571.7	.9065-03
64	.55.000	.42000	768.00	.5483-01	.6847-01	.7437-01	59.98	3.234	.4290	572.3	.8121-03
64	.67.500	.23000	769.00	.4029-01	.4876-01	.5448-01	59.48	2.396	.4243	566.1	.5958-03
64	.67.500	.25000	770.00	.5979-01	.7234-01	.8083-01	59.55	3.561	.4236	565.1	.8841-03
64	.67.500	.27000	771.00	.4801-01	.5810-01	.6493-01	59.47	2.855	.4244	566.2	.7100-03
64	.67.500	.29000	772.00	.7281-01	.8820-01	.9863-01	59.19	4.309	.4270	569.7	.1078-02
64	.67.500	.30000	773.00	.7028-01	.8517-01	.9527-01	59.09	4.153	.4280	571.0	.1041-02
64	.67.500	.31000	774.00	.9856-01	.1195	.1336	59.04	5.819	.4284	571.5	.1459-02
64	.67.500	.32000	775.00	.1229	.1489	.1666	59.05	7.255	.4283	571.4	.1819-02
64	.67.500	.33000	776.00	.1421	.1722	.1927	59.04	8.390	.4285	571.6	.2104-02
64	.67.500	.34000	777.00	.1564	.1836	.2121	59.03	9.236	.4285	571.6	.2317-02
64	.67.500	.35000	778.00	.1550	.1878	.2101	59.04	9.150	.4284	571.5	.2295-02
64	.67.500	.36000	779.00	.1484	.1798	.2012	59.04	8.761	.4284	571.5	.2197-02
64	.67.500	.37000	780.00	.1450	.1758	.1966	59.04	8.562	.4284	571.5	.2147-02
64	.67.500	.38000	781.00	.1453	.1761	.1970	59.05	8.579	.4284	571.6	.2151-02
64	.67.500	.39000	782.00	.1345	.1630	.1823	59.05	7.939	.4285	571.6	.1951-02
64	.67.500	.40000	783.00	.1206	.1462	.1636	59.05	7.125	.4283	571.4	.1786-02
64	.67.500	.41000	784.00	.1005	.1218	.1362	59.07	5.937	.4281	571.4	.1488-02
64	.67.500	.42000	785.00	.9567-01	.1159	.1297	59.06	5.650	.4282	571.3	.1417-02
64	.67.500	.43000	786.00	.8635-01	.1047	.1171	59.05	5.099	.4282	571.3	.1279-02
64	.67.500	.44000	787.00	.6814-01	.8260-01	.9240-01	59.01	4.021	.4287	572.0	.1009-02
64	.67.500	.45000	788.00	.5326-01	.6457-01	.7224-01	58.97	3.141	.4291	572.5	.7888-03
64	.67.500	.46000	789.00	.1153-01	.1358-01	.1565-01	58.91	.6794	.4297	573.2	.1708-03
64	.67.500	.47000	790.00	.2422-02	.2942-02	.3298-02	58.44	.1416	.4341	579.1	.3593-04
64	.67.500	.48000	791.00	.1402-01	.1703-01	.1907-01	58.52	.8205	.4333	578.1	.2079-03
64	.67.500	.49000	792.00	.2720-01	.3304-01	.3702-01	58.36	1.587	.4348	580.0	.4035-03
64	.67.500	.50000	793.00	.5554-01	.6738-01	.7542-01	58.80	3.266	.4307	574.6	.8231-03
64	.78.000	.27000	794.00	.6769-01	.8187-01	.9145-01	59.65	4.038	.4227	563.9	.1001-02
64	.78.000	.29000	795.00	.7378-01	.9329-01	.9975-01	59.54	4.393	.4238	565.3	.1091-02
64	.78.000	.30000	796.00	.1351	.1636	.1829	59.27	8.007	.4262	568.7	.1999-02
64	.78.000	.31000	797.00	.2225	.2596	.3014	59.20	13.17	.4269	569.6	.3293-02

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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=C.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TN DEG. R	STN NO R=0.9
64	78.000	32000	798.00	.2377	.2880	.3221	59.16	14.08	.4273	570.1	.3519-02
64	78.000	32500	799.00	.2250	.2726	.3048	59.14	13.31	.4275	570.3	.3330-02
64	78.000	33000	800.00	.2179	.2641	.2953	59.13	12.89	.4275	570.4	.3226-02
64	78.000	33500	801.00	.2122	.2571	.2875	59.11	12.54	.4277	570.7	.3141-02
64	78.000	34000	802.00	.2061	.2497	.2793	59.13	12.19	.4275	570.4	.3051-02
64	78.000	34500	803.00	.2172	.2632	.2943	59.14	12.84	.4275	570.3	.3215-02
64	78.000	35000	804.00	.2077	.2517	.2815	59.13	12.28	.4276	570.4	.3075-02
64	78.000	35500	805.00	.1850	.2242	.2507	59.12	10.94	.4276	570.5	.2739-02
64	78.000	36000	806.00	.1635	.1981	.2216	59.11	9.666	.4277	570.5	.2420-02
64	78.000	36500	807.00	.1584	.1919	.2146	59.11	9.351	.4277	570.7	.2344-02
64	78.000	37000	808.00	.1379	.1671	.1869	59.09	8.149	.4280	571.0	.2042-02
64	78.000	37500	809.00	.1240	.1503	.1681	59.06	7.323	.4283	571.3	.1836-02
64	78.000	38000	810.00	.1092	.1323	.1480	59.05	6.447	.4283	571.4	.1617-02
64	78.000	39000	811.00	.7843-01	.9507-01	.1063	59.02	4.629	.4286	571.8	.1161-02
64	78.000	40000	812.00	.4971-01	.3026-01	.6742-01	58.97	2.931	.4291	572.5	.7362-03
62	90.000	40000-01	985.00	.4847	.5810	.6451	64.78	31.40	.3968	547.9	.7255-02
62	90.000	50000-01	986.00	.4921	.5903	.6557	64.56	31.77	.3987	550.6	.7370-02
62	90.000	60000-01	987.00	.4623	.5347	.6163	64.45	29.80	.3997	551.9	.6926-02
62	90.000	70000-01	988.00	.4530	.5436	.6443	64.43	29.18	.3999	552.3	.6787-02
62	90.000	80000-01	989.00	.6205	.7445	.8272	64.45	39.99	.3999	552.0	.9295-02
62	90.000	90000+00	990.00	.3336	.4073	.4448	64.43	21.50	.4014	554.4	.4998-02
62	90.000	15000	991.00	.1813	.2177	.2419	64.25	11.65	.4273	570.0	.2717-02
62	90.000	20000	993.00	.6505-01	.7881-01	.8813-01	59.16	3.848	.4273	570.0	.9628-03
64	90.000	24000	814.00	.5711-01	.6916-01	.7732-01	59.28	3.385	.4262	568.5	.8450-03
64	90.000	25000	815.00	.4590-01	.5552-01	.6202-01	59.65	2.738	.4267	563.9	.6785-03
64	90.000	27000	816.00	.6576-01	.7951-01	.8880-01	59.73	3.927	.4220	563.0	.9717-03
64	90.000	29000	817.00	.1612	.1950	.2179	59.54	9.597	.4237	565.2	.2383-02
64	90.000	30000	818.00	.3561	.4433	.4955	59.35	21.73	.4237	565.2	.5416-02
64	90.000	31000	819.00	.3605	.4366	.4500	59.31	21.38	.4259	567.6	.5334-02
64	90.000	32000	820.00	.3258	.3945	.4410	59.30	19.32	.4260	568.3	.4820-02
64	90.000	32500	821.00	.3198	.3873	.4330	59.29	18.96	.4261	568.5	.4732-02
64	90.000	33000	822.00	.3119	.3778	.4223	59.29	18.50	.4261	568.4	.4616-02
64	90.000	33500	823.00	.3167	.3835	.4287	59.29	18.78	.4261	568.4	.4686-02
64	90.000	34000	824.00	.3852	.4665	.5216	59.29	22.84	.4261	568.5	.5700-02
64	90.000	34500	825.00	.4151	.5026	.5618	59.32	24.62	.4257	568.0	.6141-02
64	90.000	35000	826.00	.5908	.7154	.7998	59.32	35.05	.4256	568.0	.8742-02
63	90.000	35500	828.00	.4068	.4908	.5473	61.57	25.05	.4154	564.2	.6063-02
63	90.000	36000	829.00	.2850	.3439	.3835	61.54	17.54	.4156	564.7	.4248-02
63	90.000	37000	830.00	.1904	.2298	.2562	61.51	11.71	.4159	564.3	.2838-02
63	90.000	38000	831.00	.1376	.1660	.1832	61.46	8.456	.4164	565.4	.2051-02
63	90.000	39000	832.00	.9935-01	.1199	.1337	61.45	6.105	.4165	565.4	.1481-02
63	90.000	40000	833.00	.4937-01	.5959-01	.6647-01	61.41	3.032	.4168	565.9	.7360-03
63	90.000	40000	834.00	.5964-01	.7224-01	.8059-01	61.36	3.672	.4173	566.5	.8922-03

DATE 05 MAR 76  
AVES 3.5-211 1H-8  
ARC3.5-211(1H-8)OTS/NIPPLE/P/TRIP

EXT 7AWK

STN NO  
R=0.9

TH  
OE0. R

HM/HT

QD/T  
BTU/  
FT<sup>2</sup>SEC

ORF  
BTU/  
FT<sup>2</sup>SEC

H/HREF  
R=0.85

H/HREF  
R=0.9

H/HREF  
R=1.0

TC NO

X'L

PHI

RUN  
NUMBER

63	90.000	50000	835.00	.3982-01	.4810-01	.5368-01	61.16	2.435	.4192	569.1	.5940-03
63	90.000	60000	836.00	.3828-01	.4632-01	.5176-01	60.62	2.320	.4241	575.8	.5719-03
63	90.000	70000	837.00	.5355-01	.6478-01	.7237-01	60.71	3.251	.4233	574.7	.7998-03
63	90.000	80000	838.00	.9371-01	.1134	.1267	60.66	5.685	.4238	575.3	.1400-02
63	90.000	90000	839.00	.8244-01	.9953-01	.1110	61.33	5.056	.4176	567.0	.1229-02
63	112.50	23000	840.00	.6957-01	.8392-01	.9358-01	61.59	4.285	.4152	563.7	.1037-02
63	112.50	25000	841.00	.5735-01	.6979-01	.7774-01	62.07	3.597	.4108	557.7	.8623-03
63	112.50	27000	842.00	.2842-01	.3420-01	.3807-01	62.35	1.772	.4082	554.2	.4226-03
63	112.50	30000	843.00	.9103-01	.1097	.1223	61.81	5.627	.4131	560.9	.1356-02
63	112.50	33000	844.00	.2469	.2977	.3318	61.76	15.25	.4136	561.5	.3678-02
63	112.50	35000	845.00	.2813	.3391	.3779	61.80	17.39	.4133	561.1	.4169-02
63	112.50	37000	846.00	.1912	.2305	.2568	61.84	11.82	.4129	560.5	.2847-02
63	112.50	40000	847.00	.1020	.1229	.1370	61.87	6.311	.4127	560.2	.1519-02
63	112.50	45000	848.00	.7857-01	.9471-01	.1055	61.80	4.856	.4132	561.0	.1175-02
63	112.50	50000	849.00	.6064-01	.7309-01	.8146-01	61.82	3.749	.4131	560.8	.9030-03
63	112.50	55000	850.00	.6423-01	.7741-01	.8625-01	61.89	3.975	.4124	559.9	.9563-03
63	112.50	60000	851.00	.5637-01	.6802-01	.7586-01	61.50	3.467	.4160	564.8	.8402-03
63	112.50	65000	852.00	.7635-01	.9238-01	.1030	61.46	4.705	.4164	565.3	.1141-02
63	112.50	70000	853.00	.1375	.1659	.1850	61.57	8.468	.4154	564.0	.2850-02
63	112.50	75000	854.00	.1195	.1440	.1604	61.91	7.396	.4123	559.7	.1779-02
63	112.50	80000	855.00	.1078	.1300	.1450	61.60	6.641	.4151	563.6	.1606-02
63	112.50	85000	856.00	.1778	.2142	.2387	61.92	11.01	.4122	559.6	.2847-02
63	125.40	84000	857.00	.1077	.1297	.1446	61.88	6.034	.4126	560.1	.1603-02
63	125.40	85000	858.00	.9751-01	.1175	.1309	61.88	6.034	.4126	560.2	.1073-02
63	125.40	859.00	859.00	.7205-01	.8684-01	.9677-01	61.87	4.458	.4127	560.2	.1034-02
63	125.40	860.00	860.00	.6945-01	.8370-01	.9327-01	61.87	4.297	.4127	560.2	.1039-02
63	125.40	861.00	861.00	.6975-01	.8406-01	.9367-01	61.87	4.315	.4126	560.1	.1504-02
63	125.40	862.00	862.00	.1010	.1218	.1357	61.87	6.251	.4126	560.1	.1791-02
63	125.40	863.00	863.00	.1203	.1450	.1615	61.95	7.453	.4119	559.2	.2056-02
63	125.40	864.00	864.00	.1381	.1664	.1853	62.08	8.575	.4107	557.6	.3347-02
63	125.40	865.00	865.00	.2248	.2709	.3019	61.86	13.90	.4127	560.3	.1217-02
53	129.30	866.00	866.00	.8176-01	.9854-01	.1098	61.83	5.055	.4130	560.7	.1193-02
63	129.30	867.00	867.00	.8008-01	.9653-01	.1076	61.83	4.951	.4130	560.7	.1217-02
63	129.30	868.00	868.00	.7728-01	.9312-01	.1038	61.93	4.786	.4120	559.4	.1151-02
63	129.30	869.00	869.00	.1013	.1221	.1360	61.98	6.280	.4116	558.8	.1508-02
63	135.00	40000-01	870.00	.5415	.6518	.7258	62.23	33.70	.4093	555.6	.8054-02
63	135.00	50000-01	871.00	.5499	.6624	.7379	62.01	34.10	.4113	558.4	.8184-02
63	135.00	70000-01	873.00	.4864	.5861	.6530	61.95	30.13	.4119	559.3	.7241-02
63	135.00	80000-01	874.00	.4704	.5668	.6314	61.97	29.15	.4117	558.9	.4965-02
63	135.00	100000-00	875.00	.3336	.4019	.4477	61.98	20.68	.4116	560.0	.7002-02
63	135.00	15000	876.00	.2079	.2479	.2763	61.83	12.73	.4125	560.0	.3063-02
63	135.00	20000	877.00	.1150	.1386	.1545	61.73	7.101	.4135	561.4	.1712-02
63	135.00	35000	878.00	.9266-01	.1117	.1244	61.90	5.736	.4123	559.8	.1380-02

DATE 05 MAR 76

AMES 3.5-211 1M48

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	IN DEO. R	STN NO R=0.9
63	135.00	40000	879.00	.1228	.1479	.1618	61.93	7.603	.4120	559.4	.1827-02
63	135.00	50000	880.00	.1181	.1422	.1584	62.10	7.333	.4105	557.3	.1757-02
63	135.00	60000	882.00	.1252	.1509	.1681	61.86	7.748	.4125	550.1	.1864-02
63	135.00	65000	883.00	.1335	.1609	.1793	61.95	8.259	.4128	550.4	.1988-02
63	135.00	70000	884.00	.8300-01	.1000	.1114	62.13	5.141	.4119	559.3	.1236-02
63	135.00	75000	885.00	.8035-01	.9677-01	.1078	61.96	4.993	.4102	556.9	.1196-02
63	135.00	80000	886.00	.7697-01	.9273-01	.1033	62.07	4.769	.4118	559.1	.1146-02
63	135.00	84000	887.00	.1406	.1693	.1886	62.06	8.725	.4108	557.8	.2092-02
63	135.00	85000	888.00	.1288	.1561	.1729	62.09	7.992	.4108	557.5	.1916-02
63	135.00	86000	889.00	.9297-01	.1120	.1247	62.05	5.772	.4110	557.5	.1383-02
63	135.00	87000	890.00	.9855-01	.1163	.1295	62.05	5.991	.4110	558.0	.1437-02
63	135.00	88000	891.00	.1002	.1207	.1344	62.05	6.219	.4108	557.8	.1491-02
63	135.00	89000	892.00	.1131	.1362	.1517	62.11	7.016	.4109	557.9	.1683-02
63	135.00	90000	893.00	.1421	.1712	.1906	62.20	8.828	.4105	557.2	.2115-02
63	135.00	91000	894.00	.1248	.1502	.1672	61.95	7.166	.4096	556.1	.1856-02
63	135.00	92000	895.00	.1157-01	.1394	.1553	61.64	3.812	.4147	563.1	.1722-02
63	135.00	93000	896.00	.6185-01	.7459-01	.8316-01	61.95	7.740	.4118	559.1	.9214-03
63	135.00	94000	897.00	.1249	.1505	.1677	62.09	15.58	.4107	559.6	.1859-02
63	142.30	42000	898.00	.2510	.3023	.3369	62.11	15.60	.4104	557.2	.3735-02
63	142.30	43500	899.00	.2512	.3025	.3369	62.15	10.57	.4113	556.7	.2530-02
63	142.30	45000	900.00	.1344	.1619	.1804	62.02	8.335	.4105	558.4	.2000-02
63	142.30	46000	901.00	.1411	.1700	.1893	62.10	27.99	.4027	557.3	.2100-02
63	142.30	47000	902.00	.4365	.5243	.5829	64.12	20.44	.4016	556.1	.6545-02
62	154.98	93500	913.00	.3181	.3820	.4246	64.24	28.86	.4015	554.6	.4768-02
62	154.98	94500	914.00	.4492	.5393	.5984	64.29	24.50	.4012	554.4	.6732-02
62	157.50	80000-01	918.00	.3811	.4575	.5084	64.31	20.52	.4009	553.7	.5711-02
62	157.50	80000-01	919.00	.3190	.3830	.4256	64.16	6.959	.4023	553.5	.4781-02
62	157.50	82000	920.00	.1085	.1302	.1448	64.31	9.261	.4010	553.7	.1626-02
62	157.50	83000	922.00	.1440	.1729	.1921	64.29	9.711	.4012	553.0	.2158-02
62	157.50	84000	923.00	.1510	.1813	.2015	64.36	5.539	.4005	554.0	.1290-02
62	157.50	85000	924.00	.8606-01	.1033	.1148	64.34	5.666	.4007	553.3	.1319-02
62	157.50	86000	926.00	.8805-01	.1057	.1136	64.32	5.315	.4009	553.6	.1276-02
62	157.50	87000	927.00	.8518-01	.1022	.1102	64.39	8.493	.4009	553.5	.1979-02
62	157.50	88000	928.00	.8263-01	.9919-01	.1161	64.32	8.493	.4002	552.7	.2132-02
62	157.50	89000	930.00	.1320	.1585	.1897	64.51	9.162	.4013	551.3	.2276-02
62	157.50	90000	931.00	.1423	.1707	.2025	64.28	9.801	.4015	554.1	.3654-02
62	157.50	91000	932.00	.1519	.1823	.2253	64.25	15.67	.4015	554.4	.1892-02
62	157.50	92000	933.00	.2438	.2927	.3253	64.23	8.477	.4020	555.1	.1979-02
62	163.12	41500	934.00	.1262	.1515	.1684	64.10	10.62	.4029	556.3	.2484-02
62	163.12	42000	935.00	.1320	.1585	.1762	64.10	10.62	.4029	556.3	.3088-02
62	163.12	43000	937.00	.1657	.1990	.2213	64.12	13.21	.4027	556.0	
62	163.12	44000	938.00	.2059	.2473	.2750	64.12	13.21			

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	EXT TANK		H4/MT	TM DEG. R	STN NO. R=0.8
								0001 BTU/ FT2SEC	0002 BTU/ FT2SEC			
52	163.12	44500	939.00	.2112	.2536	.2819	64.21	13.56	13.56	.4019	555.0	.3166-02
52	163.12	45000	940.00	.1919	.2304	.2561	64.24	12.33	12.33	.4016	554.6	.2876-02
52	163.12	50000	941.00	.1204	.1445	.1606	64.34	7.747	7.747	.4007	553.4	.1804-02
52	163.12	60000	942.00	.1090	.1309	.1455	64.20	7.000	7.000	.4020	555.1	.1635-02
52	163.12	70000	943.00	.9976-01	.1198	.1331	64.24	6.408	6.408	.4016	554.6	.1495-02
52	163.12	80000	944.00	.9474-01	.1137	.1264	64.26	6.088	6.088	.4014	554.4	.1420-02
52	169.00	35000	945.00	.6273-01	.7532-01	.8373-01	64.21	4.028	4.028	.4019	555.0	.9403-03
52	168.00	36000	946.00	.6253-01	.7508-01	.8345-01	64.23	4.016	4.016	.4017	554.7	.9372-03
52	168.00	37000	947.00	.6095-01	.7318-01	.8134-01	64.24	3.915	3.915	.4016	554.6	.9135-03
52	168.00	37500	948.00	.6064-01	.7281-01	.8093-01	64.22	3.894	3.894	.4018	554.5	.9089-03
52	168.00	38000	950.00	.5595-01	.6718-01	.7467-01	64.24	3.595	3.595	.4016	554.8	.8387-03
52	168.00	39000	951.00	.8005-01	.9612-01	.1068	64.22	5.141	5.141	.4018	554.8	.1200-02
52	168.00	40000	952.00	.9962-01	.1196	.1330	64.22	6.398	6.398	.4019	554.8	.1493-02
52	168.00	40500	953.00	.1030	.1237	.1375	64.21	6.615	6.615	.4019	555.0	.1544-02
52	168.00	41500	954.00	.1018	.1223	.1359	64.20	6.536	6.536	.4020	555.1	.1526-02
52	168.00	42000	956.00	.1073	.1296	.1440	64.16	6.921	6.921	.4024	555.6	.1617-02
52	168.00	42500	957.00	.1164	.1398	.1554	64.14	7.465	7.465	.4025	555.8	.1745-02
52	168.00	43000	958.00	.1479	.1776	.1974	64.26	9.507	9.507	.4014	554.3	.2217-02
52	168.00	44000	959.00	.2367	.2843	.3161	64.11	15.18	15.18	.4027	556.1	.3707-02
52	168.00	44500	960.00	.2472	.2970	.3302	64.12	15.85	15.85	.4027	556.1	.3549-02
52	168.00	45000	961.00	.2310	.2774	.3084	64.19	14.83	14.83	.4020	555.2	.3463-02
52	168.00	45500	962.00	.2174	.2510	.2901	64.25	13.97	13.97	.4015	554.5	.3258-02
52	168.00	46000	963.00	.2071	.2486	.2763	64.27	13.31	13.31	.4013	554.2	.3104-02
52	168.00	47000	964.00	.1937	.2337	.2664	64.28	12.84	12.84	.4011	553.9	.2993-02
52	168.00	48000	965.00	.1740	.2088	.2321	64.29	11.19	11.19	.4011	553.8	.2607-02
52	169.00	49000	966.00	.1466	.1760	.1956	64.30	9.426	9.426	.4006	553.8	.2197-02
52	169.00	50000	967.00	.9591-01	.1151	.1279	64.35	6.172	6.172	.4006	553.2	.1437-02
52	169.00	51000	968.00	.3144-01	.1097	.1219	64.41	5.899	5.899	.4001	552.5	.1370-02
52	169.00	52000	969.00	.9430-01	.1132	.1257	64.40	6.073	6.073	.4001	552.6	.1413-02
52	169.00	53000	970.00	.8790-01	.1055	.1172	64.39	5.660	5.660	.4003	552.7	.1317-02
52	169.00	54000	971.00	.1346	.1615	.1795	64.37	8.662	8.662	.4004	553.0	.2016-02
52	169.00	55000	972.00	.2070	.2484	.2760	64.40	13.33	13.33	.4001	552.6	.3605-02
52	168.00	56000	973.00	.2407	.2887	.3208	64.49	15.52	15.52	.3993	552.6	.3101-02
52	168.00	57000	974.00	.1951	.2340	.2599	64.61	12.61	12.61	.3982	549.9	.2922-02
52	168.00	58000	975.00	.2201	.2642	.2936	64.32	14.16	14.16	.4003	553.5	.2298-02
52	168.00	59000	976.00	.1511	.1815	.2019	64.28	18.38	18.38	.4036	557.3	.2266-02
52	168.00	60000	977.00	.2859	.3432	.3815	64.51	47.31	47.31	.4012	554.0	.4285-02
52	168.00	61000	978.00	.7655	.8799	.9775	64.51	39.61	39.61	.3983	551.2	.1090-01
52	168.00	62000	979.00	.5725	.6907	.7702	61.17	35.02	35.02	.4157	550.0	.1148-01
52	168.00	63000	980.00	.5264	.6355	.7090	60.95	32.08	32.08	.4177	556.5	.8569-02
52	168.00	64000	981.00	.4925	.5948	.6637	60.88	29.98	29.98	.4184	567.5	.7883-02
52	168.00	65000	982.00	.4768	.5759	.6426	60.85	29.01	29.01	.4187	567.8	.7143-02

DATE 05 MAR 76

AMES 3.5-211 1H48

ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP

EXT TANK

LN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
65	180.00	.8000-01	604.00	.5389	.6508	.7262	60.83	32.81	.4183	567.4	.8073-02
66	180.00	.1000+00	605.00	.2897	.3499	.3904	60.90	17.64	.4182	567.2	.4340-02
66	180.00	.1500	606.00	.1861	.2547	.2507	60.94	11.34	.4178	566.6	.2788-02
66	180.00	.2000	607.00	.1032	.1247	.1391	60.82	6.278	.4189	568.2	.1546-02
66	180.00	.2100	608.00	.8369-01	.1011	.1128	60.86	5.092	.4186	567.7	.1254-02
66	180.00	.2200	609.00	.7166-01	.8554-01	.9656-01	60.87	4.362	.4184	567.5	.1073-02
66	180.00	.3000	610.00	.6037-01	.7278-01	.8111-01	61.42	3.708	.4133	560.6	.9030-03
66	180.00	.3500	611.00	.5624-01	.6732-01	.7560-01	61.33	3.449	.4142	561.8	.8414-03
66	180.00	.3600	612.00	.5397-01	.6508-01	.7254-01	61.33	3.310	.4142	561.8	.8075-03
66	180.00	.3700	613.00	.5494-01	.6625-01	.7384-01	61.35	3.371	.4140	561.5	.8220-03
66	180.00	.3750	614.00	.5866-01	.7073-01	.7885-01	61.34	3.590	.4141	561.6	.8777-03
66	180.00	.3800	615.00	.8582-01	.1035	.1154	61.34	5.264	.4141	561.7	.1284-02
66	180.00	.3850	616.00	.9749-01	.1176	.1311	61.32	5.978	.4143	561.9	.1459-02
66	180.00	.3900	617.00	.8892-01	.1072	.1195	61.31	5.452	.4144	562.1	.1331-02
66	180.00	.3950	618.00	.8300-01	.1001	.1116	61.33	5.090	.4142	561.8	.1242-02
66	180.00	.4000	619.00	.7751-01	.9347-01	.1042	61.30	4.814	.4145	562.0	.1175-02
66	180.00	.4050	620.00	.9126-01	.9471-01	.1056	61.28	5.593	.4147	562.4	.1366-02
66	180.00	.4100	621.00	.1220	.1471	.1640	61.27	7.473	.4148	562.6	.1825-02
66	180.00	.4150	622.00	.1942	.2343	.2612	61.27	11.90	.4146	562.4	.2907-02
66	180.00	.4200	624.00	.2774	.3092	.3092	61.28	14.09	.4146	562.4	.3441-02
66	180.00	.4250	625.00	.3300	.4021	.4482	61.35	20.46	.4140	561.5	.4989-02
66	180.00	.4300	626.00	.4106	.4951	.5518	61.38	25.21	.4137	561.1	.6143-02
66	180.00	.4350	627.00	.4166	.5022	.5597	61.43	25.59	.4133	560.5	.6231-02
66	180.00	.4400	628.00	.3409	.4109	.4579	61.47	20.96	.4129	560.0	.5099-02
66	180.00	.4450	629.00	.2618	.3155	.3516	61.51	16.10	.4127	559.8	.3915-02
66	180.00	.4500	630.00	.1684	.2029	.2261	61.51	10.36	.4125	559.5	.2518-02
66	180.00	.4550	631.00	.1283	.1546	.1722	61.66	7.913	.4111	557.6	.1918-02
66	180.00	.4600	632.00	.8862-01	.1057	.1188	61.78	5.475	.4100	556.1	.1324-02
66	180.00	.4650	633.00	.7073-01	.8510-01	.9472-01	62.02	4.386	.4079	553.2	.1056-02
66	180.00	.4700	634.00	.1393	.1674	.1862	62.29	8.675	.4053	549.7	.2078-02
66	180.00	.4750	635.00	.9713-01	.1043	.1169	61.75	5.380	.4103	556.6	.1302-02
66	180.00	.4800	636.00	.8791-01	.1059	.1179	61.78	5.431	.4100	556.1	.1314-02
66	180.00	.4850	637.00	.8203-01	.9867-01	.1098	62.12	5.096	.4059	551.8	.1225-02
66	180.00	.4900	638.00	.9553-01	.1148	.1276	62.48	5.969	.4036	547.4	.1425-02
66	180.00	.4950	639.00	.7335-01	.8821-01	.9815-01	62.20	4.563	.4061	550.8	.1095-02
66	180.00	.5000	640.00	.8345-01	.1003	.1116	62.26	5.195	.4056	550.2	.1245-02
66	180.00	.5050	641.00	.7694-01	.9250-01	.1029	62.26	4.789	.4056	550.1	.1148-02
66	180.00	.5100	642.00	.1075	.1292	.1438	62.26	6.692	.4056	550.2	.1604-02
66	180.00	.5150	643.00	.2161	.2598	.2890	62.29	13.46	.4053	549.7	.3226-02
66	180.00	.5200	644.00	.2844	.3417	.3801	62.41	17.75	.4042	548.3	.4242-02
66	180.00	.5250	645.00	.2372	.2848	.3167	62.63	14.85	.4022	545.5	.3537-02
66	180.00	.5300	646.00	.2585	.3107	.3457	62.29	16.10	.4054	549.8	.3857-02
66	180.00	.5350	648.00								



AMES 3.5-211 1148

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RUN NUMBER	PHI	X/L	TC NO	M/REF R=1.0	M/REF R=0.9	M/REF R=0.85	OREF BTU/ FT2SEC	EXT TANK OOT BTU/ FT2SEC	M/HT	TH DEG. R	STN NO R=0.9
55	182.00	.95000	649.00	.5608-01	.6758-01	.7531-01	61.50	3.449	.4126	559.6	.8386-03
56	191.25	.35000	650.00	.5154-01	.6217-01	.6932-01	61.21	3.155	.4153	563.2	.7713-03
56	191.25	.36000	651.00	.5088-01	.6149-01	.6856-01	61.25	3.122	.4150	562.8	.7629-03
56	191.25	.37000	652.00	.6810-01	.8212-01	.9154-01	61.34	4.177	.4141	561.7	.1019-02
56	191.25	.37500	653.00	.9972-01	.1202	.1340	61.37	6.120	.4138	561.2	.1492-02
56	191.25	.38000	654.00	.8981-01	.1082	.1206	61.47	5.521	.4129	560.0	.1343-02
56	191.25	.38500	655.00	.8037-01	.9688-01	.1080	61.43	4.937	.4133	560.5	.1202-02
56	191.25	.39000	656.00	.7166-01	.8638-01	.9627-01	61.43	4.402	.4132	560.5	.1072-02
56	191.25	.39500	657.00	.7254-01	.8744-01	.9745-01	61.43	4.456	.4133	560.6	.1085-02
56	191.25	.40000	658.00	.7527-01	.9074-01	.1011	61.41	4.622	.4135	560.8	.1126-02
56	191.25	.40500	659.00	.7990-01	.9631-01	.1073	61.45	4.910	.4131	560.3	.1195-02
56	191.25	.41000	660.00	.8954-01	.1067	.1189	61.52	5.447	.4124	559.4	.1324-02
56	191.25	.41500	661.00	.8982-01	.1083	.1207	61.47	5.521	.4129	560.1	.1343-02
56	191.25	.42000	662.00	.1301	.1568	.1748	61.48	8.000	.4128	559.8	.1946-02
56	191.25	.42500	663.00	.1522	.1835	.2045	61.48	9.360	.4128	559.9	.2277-02
56	191.25	.43000	664.00	.2626	.3165	.3097	61.52	14.19	.4125	559.5	.3449-02
56	191.25	.44000	665.00	.2376	.2780	.3526	61.56	16.17	.4120	558.9	.3927-02
56	191.25	.45000	666.00	.1736	.2091	.2329	61.62	10.69	.4116	558.2	.2595-02
56	191.25	.45500	667.00	.1878	.2276	.2536	61.57	11.63	.4120	558.8	.2825-02
56	191.25	.46000	668.00	.1835	.2262	.2520	61.66	11.58	.4112	557.7	.2807-02
56	191.25	.47000	669.00	.1781	.2210	.2461	61.70	11.32	.4108	557.2	.2742-02
56	191.25	.48000	670.00	.1921	.2145	.2389	61.77	11.00	.4101	556.3	.2662-02
56	191.25	.49000	671.00	.1504	.1810	.2015	61.91	9.309	.4088	554.5	.2246-02
56	191.25	.50000	672.00	.9742-01	.1172	.1305	61.97	11.94	.4065	551.4	.2667-02
56	191.25	.60000	673.00	.1427	.1715	.1908	62.34	8.895	.4049	549.1	.1455-02
56	191.25	.70000	674.00	.7793-01	.9403-01	.1049	61.57	4.798	.4160	563.6	.1163-02
56	191.25	.80000	676.00	.7125-01	.8593-01	.9589-01	61.54	4.384	.4163	566.0	.1033-02
56	191.25	.90000	677.00	.1046	.1262	.1407	61.55	6.437	.4162	565.8	.1561-02
56	191.25	.00000	678.00	.1723	.2079	.2318	61.55	10.60	.4154	564.7	.2571-02
56	191.25	.10000	679.00	.1813	.2188	.2439	61.64	11.18	.4142	563.2	.2787-02
56	191.25	.20000	681.00	.1869	.2253	.2511	61.76	11.54	.4126	560.9	.2459-02
56	191.25	.30000	682.00	.1675	.2019	.2250	61.94	10.38	.4154	564.7	.2435-02
56	191.25	.40000	683.00	.1672	.2017	.2249	61.64	10.31	.4188	569.4	.2552-03
56	191.25	.50000	684.00	.6395-01	.7244-01	.8620-01	61.26	3.918	.4188	569.4	.2552-03
56	191.25	.60000	685.00	.4966-01	.6034-01	.6742-01	60.68	3.025	.4242	576.7	.7459-03
56	191.25	.70000	686.00	.4825-01	.5840-01	.6526-01	60.66	2.927	.4243	576.9	.7320-03
56	191.25	.80000	687.00	.4863-01	.5881-01	.6572-01	60.67	2.949	.4242	576.8	.7271-03
56	191.25	.90000	688.00	.4765-01	.5765-01	.6442-01	60.71	2.892	.4239	576.4	.7129-03
56	191.25	.00000	689.00	.9511-01	.1161	.1297	60.91	5.848	.4220	573.8	.1435-02
56	191.25	.10000	690.00	.1231	.1476	.1649	60.93	7.440	.4219	573.6	.1826-02
56	191.25	.20000	691.00	.2239	.3617	.4033	61.67	18.50	.4151	564.3	.4474-02
56	191.25	.30000	692.00	.1204	.1453	.1621	61.43	7.393	.4173	567.3	.1797-02

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(RAN8F09)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	EXT TANK QDOT BTU/ FT2SEC	MM/HT	TH DEG. R	STN NO R=0.9
65	197.00	70000	693.00	.3049	.3678	.4100	61.68	18.80	.4150	564.3	.4549-02
65	197.00	.8' 000	694.00	.7258-01	.8753-01	.9759-01	61.70	4.478	.4148	563.9	.1083-02
65	197.00	.97000	695.00	.1092	.1318	.1469	61.65	6.736	.4152	564.5	.1630-02
65	197.00	.92600	696.00	.1726	.2082	.2321	61.71	8.644	.4147	563.8	.2575-02
65	209.80	.15000-01	697.00	.1434	.1738	.1944	60.28	30.59	.4279	581.7	.2148-02
65	209.80	.30000-01	698.00	.5020	.6070	.6779	60.94	30.59	.4218	573.5	.7505-02
65	209.80	.50000-01	699.00	.5594	.6766	.7557	60.84	34.03	.4227	574.7	.8365-02
65	209.80	.70000-01	700.00	.5063	.6125	.6842	60.82	30.80	.4229	574.9	.7572-02
65	209.80	.10000-00	701.00	.4159	.5030	.5617	60.91	25.34	.4220	573.8	.6219-02
65	209.80	.15000	702.00	.1992	.2408	.2689	60.95	12.14	.4217	573.4	.2977-02
65	209.80	.20000	703.00	.9035-01	.1093	.1221	60.79	5.492	.4232	575.3	.1351-02
65	209.80	.30000	704.00	.3738-01	.4519-01	.5045-01	61.05	2.282	.4208	572.1	.5597-03
65	209.80	.35000	705.00	.6224-01	.7532-01	.8417-01	60.66	3.776	.4243	576.9	.9312-03
65	209.80	.37500	706.00	.1080	.1305	.1458	60.95	6.582	.4216	573.3	.1614-02
65	209.80	.50000	707.00	.1625	.1960	.2186	61.63	10.02	.4154	564.8	.2425-02
65	209.80	.60000	708.00	.7919-01	.9557-01	.1066	61.50	4.871	.4166	566.4	.1182-02
65	209.80	.70000	709.00	.1089	.1312	.1463	61.80	6.727	.4139	562.7	.1623-02
65	209.80	.80000	710.00	.5753-01	.6936-01	.7730-01	61.83	3.557	.4136	562.3	.8579-03
65	209.80	.92500	711.00	.6568-01	.7919-01	.8528-01	61.84	4.062	.4135	562.2	.9755-03
65	209.80	.15000-01	712.00	.1351	.1629	.1815	60.21	8.361	.4131	561.7	.2015-02
65	209.80	.20000-01	713.00	.1487	.1802	.2016	60.21	8.951	.4285	582.6	.2227-02
65	209.80	.30000-01	714.00	.4374	.5288	.5906	60.96	26.66	.4216	573.2	.6519-02
65	209.80	.40000-01	715.00	.4586	.5550	.6201	60.69	27.84	.4240	576.5	.6651-02
65	209.80	.50000-01	716.00	.6342	.7671	.8568	60.83	38.58	.4228	574.8	.9494-02
65	209.80	.60000-00	717.00	.2652	.3207	.3582	60.92	16.16	.4220	573.7	.3956-02
65	209.80	.70000	718.00	.2731	.3302	.3689	60.93	16.64	.4219	573.6	.4033-02
65	209.80	.80000	719.00	.1118	.1352	.1510	60.82	6.759	.4228	574.9	.1672-02
65	209.80	.90000	720.00	.4714-01	.5656-01	.6359-01	61.10	2.880	.4203	571.4	.7944-03
65	209.80	.10000	721.00	.5232-01	.7541-01	.8426-01	60.69	3.782	.4241	576.5	.9323-03
65	209.80	.20000	722.00	.7284-01	.8808-01	.9837-01	60.91	4.436	.4221	573.9	.1289-02
65	209.80	.30000	723.00	.1011	.1220	.1360	61.62	6.230	.4155	564.9	.1518-02
65	209.80	.40000	724.00	.6643-01	.8019-01	.8946-01	61.44	4.081	.4172	567.2	.9918-03
65	209.80	.50000	725.00	.8031-01	.9684-01	.1080	61.74	4.958	.4144	563.5	.1199-02
65	209.80	.60000	726.00	.4193-01	.5056-01	.5635-01	61.78	2.590	.4140	562.9	.5253-03
65	209.80	.70000	727.00	.7189-01	.8664-01	.9654-01	61.96	4.454	.4125	560.8	.1072-02
65	209.80	.80000	728.00	.1219	.1469	.1637	61.95	7.553	.4125	560.8	.1818-02

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EXTERNAL TANK

ARC3.5-211(1M48)OTS/NIPPLE/P/TRIP

EXT TANK

(R08F10)

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = 5.000 BETA = -5.000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
71	5.000	-5.000	5.300	5.054	405.0	1291.	315.3	.0000	.0000	.0000	.0000	.1750-01
72	5.000	-5.000	5.300	4.984	405.0	1303.	318.2	.5342	200.4	.2237-03	3677.	.1750-01
73	5.000	-5.000	5.300	4.688	405.4	1355.	331.6	.5331	208.8	.2143-03	3754.	.1750-01
74	5.000	-5.000	5.300	4.776	405.0	1338.	327.3	.5331	206.1	.2170-03	3730.	.1750-01
75	5.000	-5.000	5.300	4.863	406.1	1325.	324.0	.5350	204.1	.2200-03	3711.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	P41	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HN/HT	TW DEG. R	STN NO R=0.9
72	.00003	.30000-02	730.00	.3892	.4723	.5288	58.29	22.69	.4317	572.6	.5752-02
72	.00000	.10000-01	731.00	.9396-01	.1139	.1274	58.60	5.506	.4287	559.6	.1387-02
72	.00000	.15000-01	732.00	.5718-01	.6925-01	.7742-01	58.86	3.365	.4263	565.4	.8436-03
72	.00000	.25000-01	734.00	.5004	.6051	.6758	58.29	29.67	.4222	560.0	.7373-02
72	.00000	.30000-01	735.00	.7436	.8991	1.004	59.34	44.13	.4217	559.3	.1096-01
72	.00000	.40000-01	737.00	.6483	.7844	.8764	59.14	38.34	.4237	561.9	.9557-02
72	.00000	.45000-01	739.00	.5860	.7093	.7926	59.05	34.60	.4246	563.1	.8641-02
72	.00000	.60000-01	739.00	.5068	.6137	.6861	58.90	29.85	.4259	564.9	.7477-02
72	.00000	.70000-01	740.00	.4764	.5769	.6448	58.94	28.08	.4255	564.4	.7028-02
72	.00000	.80000-01	741.00	.4351	.5268	.5888	58.97	25.66	.4253	564.1	.6418-02
72	.00000	.10000-00	742.00	.3046	.3688	.4122	58.96	17.96	.4254	564.1	.4493-02
72	.00000	.12500	743.00	.2765	.2864	.3201	58.94	13.94	.4256	564.4	.3469-02
72	.00000	.15000	744.00	.1926	.2333	.2608	58.80	11.34	.4261	565.1	.2842-02
72	.00000	.17500	745.00	.1240	.1502	.1680	58.78	7.289	.4271	566.4	.1830-02
72	.00000	.20000	746.00	.9232-01	.1123	.1274	58.60	5.503	.4288	568.7	.1397-02
72	.00000	.21500	747.00	.7919-01	.9503-01	.1075	58.47	4.630	.4300	570.2	.1170-02
72	.00000	.23000	748.00	.6693-01	.8119-01	.9088-01	58.40	3.909	.4307	571.2	.9863-03
72	.00000	.24000	749.00	.6417-01	.7783-01	.8709-01	58.45	3.751	.4301	570.5	.9479-03
72	.00000	.25000	750.00	.5159-01	.6349-01	.6987-01	58.81	3.034	.4268	566.1	.7612-03
72	.00000	.30000	751.00	.5773-01	.7302-01	.7835-01	58.47	3.375	.4300	570.3	.8528-03
73	.00000	.35000	752.00	.5578-01	.6704-01	.7457-01	63.84	3.560	.4049	559.5	.8382-03
73	.00000	.40000	753.00	.5422-01	.6518-01	.7251-01	63.79	3.459	.4053	560.1	.8150-03
73	.00000	.50000	754.00	.6034-01	.7327-01	.8151-01	63.75	3.685	.4057	560.6	.9160-03



DATE 05 MAR 76

AMES 3.5-211 1H:8

APC3.5-211(1H48)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
73	78.000	32500	799.00	3158	3796	4224	63.75	20.13	4057	550.6	4747-02
73	78.000	33000	800.00	3255	3914	4355	63.74	20.75	4057	550.6	4894-02
73	78.000	33500	801.00	3278	3941	4384	63.74	20.89	4057	550.7	4927-02
73	78.000	34000	802.00	3175	3817	4246	63.77	20.25	4055	550.3	4772-02
73	78.000	34500	803.00	3155	3793	4219	63.78	20.12	4054	550.2	4742-02
73	78.000	35000	804.00	2954	3952	3952	63.76	18.84	4055	550.4	4441-02
73	78.000	35500	805.00	2365	2842	3161	63.84	15.09	4049	559.5	3554-02
73	78.000	36000	806.00	2066	2483	2762	63.79	13.18	4053	550.1	3105-02
73	78.000	36500	807.00	2046	2459	2736	63.79	13.05	4053	550.0	3075-02
73	78.000	37000	808.00	1909	2234	2552	63.75	11.36	4057	550.6	2869-02
73	78.000	37500	809.00	1782	2143	2384	63.74	10.08	4057	550.7	2679-02
73	78.000	38000	810.00	1581	1901	2115	63.71	7.950	4061	551.1	2377-02
73	78.000	39000	811.00	1248	1501	1670	63.66	6.638	4065	551.7	1876-02
73	78.000	40000	812.00	1043	1234	1395	61.46	27.87	4134	558.2	1568-02
75	90.000	40000-01	985.00	4534	5466	6092	61.22	28.70	4156	561.2	6961-02
75	90.000	50000-01	986.00	4688	5655	6305	61.12	26.63	4166	562.5	6472-02
75	90.000	60000-01	987.00	4357	5259	5865	61.06	26.12	4171	563.2	6355-02
75	90.000	70000-01	988.00	4278	5164	5760	61.05	32.91	4171	563.3	6039-02
75	90.000	80000-01	993.00	3920	4606	5390	61.05	19.65	4172	563.4	4763-02
75	90.000	100000-00	990.00	3220	3986	4335	60.91	10.73	4185	565.2	2618-02
75	90.000	15000	991.00	1762	2127	2374	63.78	4.156	4054	560.3	9795-03
75	90.000	20100	813.00	6517-01	7834-01	8716-01	63.90	3.647	4043	559.7	8577-03
73	90.000	24000	814.00	5708-01	6850-01	7629-01	64.30	3.072	4007	553.7	7170-03
73	90.000	25000	815.00	4777-01	5733-01	6371-01	64.39	4.375	3999	552.6	1020-02
73	90.000	27000	816.00	6794-01	8153-01	9058-01	64.19	11.75	4017	555.1	2748-02
73	90.000	29000	817.00	1830	2197	2443	63.95	23.69	4039	559.1	5565-02
73	90.000	30000	818.00	3704	4451	4950	63.90	21.82	4043	558.7	5603-02
73	90.000	31000	819.00	3727	4479	4981	63.90	21.36	4043	558.7	5024-02
73	90.000	32000	820.00	3343	4018	4469	63.92	21.22	4042	558.5	4968-02
73	90.000	32500	821.00	3320	3989	4436	63.95	25.34	4039	557.7	5951-02
73	90.000	34000	824.00	4077	4899	5448	64.01	27.62	4033	557.3	6828-02
73	90.000	34500	825.00	3961	4759	532	61.88	32.21	4148	555.3	5369-02
73	90.000	35000	826.00	5877	7060	7851	61.86	14.08	4149	566.4	2879-02
73	90.000	35500	829.00	3593	4329	4826	61.84	11.90	4152	566.6	1857-02
73	90.000	36000	830.00	2277	2746	2588	61.82	7.673	4153	567.0	1005-02
73	90.000	37000	831.00	1924	2321	1669	61.79	4.149	4156	567.6	6857-03
73	90.000	38000	832.00	1241	1497	9033-01	61.74	3.654	4161	571.8	7689-03
73	90.000	39000	833.00	5914-01	8101-01	7964-01	61.41	3.152	4191	575.9	6391-03
73	90.000	40000	834.00	5918-01	7141-01	6920-01	61.07	2.600	4222	576.6	1130-02
73	90.000	40300	835.00	5133-01	6201-01	5749-01	61.02	4.598	4227	576.1	1211-02
73	90.000	4256-01	836.00	4256-01	5147-01	1018					
73	90.000	60000	837.00	7535-01	9114-01	1091					
73	90.000	70000	838.00	8075-01	9765-01						
73	90.000	80000	839.00								

ANES 3.5-211 1148

DATE 05 MAR 76

ARC3.5-211(1148)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/MREF R=1.0	H/MREF R=0.9	H/MREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H/MHT	TH DEO. R	STN NO R=0.9
74	90.000	.90000	839.00	.8354-01	.1009	.1126	61.50	5.138	.4182	570.6	.1251-02
74	112.50	.25000	840.00	.4742-01	.5721-01	.6379-01	61.81	2.931	.4154	566.8	.7056-03
74	112.50	.25000	841.00	.3774-01	.4548-01	.5068-01	62.10	2.343	.4128	563.1	.5842-03
74	112.50	.27000	842.00	.1695-01	.2041-01	.2274-01	62.30	1.056	.4109	560.6	.2532-03
74	112.50	.30000	843.00	.7612-01	.9179-01	.1023	61.93	4.714	.4143	565.3	.1139-02
74	112.50	.33000	844.00	.1756	.2118	.2360	61.98	10.89	.4138	564.6	.2627-02
74	112.50	.35000	845.00	.1564	.1885	.2101	62.04	9.703	.4133	563.8	.2318-02
74	112.50	.37000	846.00	.1114	.1343	.1497	62.09	6.920	.4128	563.2	.1866-02
74	112.50	.40000	847.00	.4752-01	.5727-01	.6382-01	62.11	2.952	.4127	563.0	.7165-03
74	112.50	.45000	848.00	.2559-01	.3085-01	.3439-01	62.03	1.587	.4134	564.0	.3827-03
74	112.50	.50000	849.00	.7670-02	.9250-02	.1031-01	61.93	4.750	.4143	565.3	.1147-03
74	112.50	.55000	850.00	.1163-01	.1403-01	.1563-01	61.95	.7206	.4141	565.0	.1740-03
74	112.50	.60000	851.00	.2735-01	.3300-01	.3680-01	61.77	1.689	.4158	567.3	.4056-03
74	112.50	.65000	852.00	.4367-01	.5269-01	.5876-01	61.74	2.696	.4161	567.6	.5535-03
74	112.50	.70000	853.00	.6133-01	.7376-01	.8226-01	61.73	3.773	.4162	567.8	.3119-03
74	112.50	.75000	854.00	.8901-01	.1025	.1143	61.90	5.262	.4146	565.6	.1242-02
74	112.50	.80000	855.00	.6873-01	.8293-01	.9248-01	61.76	4.245	.4159	567.4	.1939-02
74	112.50	.85000	856.00	.1051	.1267	.1412	61.94	6.507	.4143	565.1	.1571-02
74	112.50	.90000	857.00	.1148	.1384	.1543	61.93	7.107	.4144	565.3	.1717-02
74	112.50	.95000	858.00	.9222-01	.1197	.1334	61.92	6.144	.4144	565.4	.1421-02
74	112.50	.98000	859.00	.7626-01	.9490-01	.1062	60.25	4.715	.4297	565.2	.1038-02
74	112.50	.99000	860.00	.6722-01	.8107-01	.9038-01	61.89	4.160	.4147	565.7	.1038-02
74	112.50	.99500	861.00	.6109-01	.7358-01	.8214-01	61.88	3.781	.4147	565.8	.9135-03
74	112.50	.99800	862.00	.6606-01	.7967-01	.8883-01	61.87	4.087	.4149	566.0	.9282-03
74	112.50	.99900	863.00	.8274-01	.9978-01	.1112	61.92	5.123	.4144	565.4	.1236-02
74	112.50	.99950	864.00	.7260-01	.8752-01	.9755-01	62.00	4.501	.4137	564.2	.1038-02
74	112.50	.99980	865.00	.1099	.1325	.1478	61.81	6.790	.4154	565.7	.1547-02
74	112.50	.99990	866.00	.7136-01	.8606-01	.9595-01	61.87	4.415	.4149	565.0	.1038-02
74	112.50	.99995	867.00	.7576-01	.9138-01	.1019	61.87	4.687	.4149	565.0	.1038-02
74	112.50	.99998	868.00	.8996-01	.9131-01	.1019	61.99	4.694	.4139	564.6	.1038-02
74	112.50	.99999	869.00	.4968	.1085	.1209	62.01	5.579	.4136	564.2	.1038-02
74	112.50	.99999	870.00	.4342	.5857	.6519	62.66	30.51	.4076	565.6	.1038-02
74	112.50	.99999	871.00	.3627	.5227	.5820	62.46	27.12	.4094	563.6	.1038-02
74	112.50	.99999	872.00	.2375	.4367	.4884	62.40	22.63	.4099	563.2	.1038-02
74	112.50	.99999	873.00	.1242	.2859	.3184	62.42	14.82	.4099	563.2	.1038-02
74	112.50	.99999	874.00	.6351-01	.1496	.1666	62.32	7.741	.4107	560.4	.1856-02
74	112.50	.99999	875.00	.3911-01	.7654-01	.8529-01	62.13	3.946	.4125	562.8	.1038-02
74	112.50	.99999	876.00	.5768-01	.4714-01	.5254-01	62.09	2.429	.4128	563.2	.1038-02
74	112.50	.99999	877.00	.4404-01	.6965-01	.7783-01	62.14	3.602	.4124	563.6	.1038-02
74	112.50	.99999	878.00	.5555-01	.5308-01	.5915-01	62.10	2.735	.4128	563.2	.1038-02
74	112.50	.99999	879.00	.6182-01	.6693-01	.7458-01	62.18	3.454	.4121	562.1	.1038-02
74	112.50	.99999	880.00	.7436-01	.7453-01	.8307-01	62.01	4.336	.4136	564.3	.1038-02
74	112.50	.99999	881.00	.8966-01	.8966-01	.9994-01	61.98	4.605	.4138	564.6	.1038-02
74	112.50	.99999	882.00								
74	112.50	.99999	883.00								

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AMES 3.5-211 INH8

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TH DEG. R	STN NO R=0.9
74	135.00	.70000	884.00	.7205-01	.8588-01	.9684-01	61.95	4.464	.4141	565.0	-1078-02
74	135.00	.75000	885.00	.8193-01	.9876-01	.1101	62.03	5.082	.4134	563.9	-1223-02
74	135.00	.80000	886.00	.7051-01	.8501-01	.9476-01	61.98	4.371	.4138	564.6	-1055-02
74	135.00	.84000	887.00	.1254	.1511	.1684	62.07	7.780	.4131	563.6	-1874-02
74	135.00	.85000	888.00	.1369	.1650	.1839	62.06	8.497	.4131	563.6	-2647-02
74	135.00	.86000	889.00	.7778-01	.9376-01	.1045	62.06	4.827	.4131	563.6	-1163-02
74	135.00	.87000	890.00	.7493-01	.9033-01	.1007	62.02	4.367	.4135	564.1	-1120-02
74	135.00	.88000	891.00	.7341-01	.8488-01	.9460-01	62.02	4.370	.4138	564.5	-1053-02
74	135.00	.89000	892.00	.7051-01	.8501-01	.9475-01	61.99	5.814	.4135	564.2	-1054-02
74	135.00	.90000	893.00	.9376-01	.1130	.1260	62.01	5.659	.4129	563.3	-1402-02
74	135.00	.91000	894.00	.9115-01	.1099	.1224	62.09	5.814	.4135	563.3	-1353-02
74	135.00	.92000	895.00	.1146	.1324	.1487	61.88	6.842	.4148	565.9	-1654-02
74	135.00	.93000	896.00	.5326-01	.6429-01	.7172-01	61.63	3.282	.4171	559.0	-9161-03
74	142.30	.42000	897.00	.6123-01	.7385-01	.8227-01	62.21	3.813	.4117	561.2	-1573-02
74	142.30	.43500	898.00	.1053	.1268	.1413	62.25	6.553	.4114	561.3	-1396-02
74	142.30	.45000	899.00	.9273-01	.1117	.1244	62.24	5.772	.4115	562.6	-6506-03
74	142.30	.50000	900.00	.4352-01	.5245-01	.5844-01	62.14	2.705	.4124	563.1	-1009-02
74	142.30	.52000	901.00	.5750-01	.8136-01	.9066-01	62.10	4.192	.4127	563.5	-1056-02
74	142.30	.54000	902.00	.7033-01	.8513-01	.9487-01	62.07	4.384	.4130	563.2	-5519-02
75	154.99	.93500	913.00	.3711	.4485	.5007	60.66	22.51	.4208	566.1	-4014-02
75	154.98	.94500	914.00	.2700	.3261	.3640	60.83	16.42	.4192	565.4	-4522-02
75	157.50	.70000-01	919.00	.3077	.3715	.4144	61.95	18.73	.4172	563.4	-4157-02
75	157.50	.80000-01	919.00	.2799	.3377	.3767	61.09	12.18	.4169	563.0	-2951-02
75	157.50	.90000-01	920.00	.1933	.2405	.2683	61.11	3.040	.4178	564.3	-4070-02
75	157.50	.20000	922.00	.4985-01	.6019-01	.6715-01	60.99	4.577	.4173	563.6	-1114-02
75	157.50	.30000	926.00	.7498-01	.9052-01	.1010	61.04	3.235	.4178	564.2	-7891-03
75	157.50	.40000	927.00	.5394-01	.6034-01	.7144-01	60.99	3.897	.4182	564.1	-9333-03
75	157.50	.50000	928.00	.6394-01	.7721-01	.8615-01	60.95	3.721	.4182	564.0	-9574-03
75	157.50	.60000	929.00	.6106-01	.7373-01	.8227-01	60.94	4.161	.4183	564.0	-1000-02
75	157.50	.70000	930.00	.6731-01	.8128-01	.9059-01	60.93	4.657	.4182	564.1	-1186-02
75	157.50	.80000	931.00	.7641-01	.8227-01	.1030	60.95	5.146	.4171	563.2	-1282-02
75	157.50	.90000	932.00	.8427-01	.1017	.1135	61.06	5.235	.4181	561.6	-1289-02
75	157.50	.10000	933.00	.8549-01	.1031	.1150	61.24	10.92	.4181	564.0	-2683-02
75	157.50	.20000	934.00	.1731	.2123	.2413	60.95	4.330	.4177	564.0	-1066-02
75	163.12	.41000	935.00	.7339-01	.8570-01	.9562-01	60.95	4.128	.4181	564.1	-1066-02
75	163.12	.42000	937.00	.6773-01	.8178-01	.9125-01	60.86	5.276	.4183	564.1	-1066-02
75	163.12	.43000	938.00	.1071	.1245	.1390	60.86	10.72	.4183	564.1	-1066-02
75	163.12	.44000	939.00	.1760	.2126	.2373	60.88	11.23	.4183	564.1	-1066-02
75	163.12	.45000	940.00	.1842	.2224	.2482	60.97	11.23	.4183	564.1	-1066-02
75	163.12	.46000	941.00	.1672	.2019	.2253	60.99	11.84	.4183	564.1	-1066-02
75	163.12	.47000	942.00	.1935	.2334	.2604	61.22	6.921	.4183	564.1	-1066-02
75	163.12	.48000	943.00	.1135	.1371	.1530	60.96	4.639	.4183	564.1	-1066-02
75	163.12	.49000	944.00	.7922-01	.9552-01	.1057	61.08	4.639	.4183	564.1	-1066-02

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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TA DEG. R	STN NO R=0.9
75	163.12	.80000	944.00	.6438-01	.7773-01	.8673-01	60.95	3.924	.4181	564.8	.9567-03
75	168.00	.35000	945.00	.2957-01	.3569-01	.3981-01	61.08	1.806	.4169	563.1	.4393-03
75	168.00	.36000	946.00	.4605-01	.5558-01	.6199-01	61.0	2.813	.4169	562.9	.6841-03
75	168.00	.37000	947.00	.4395-01	.5305-01	.5917-01	61.09	2.685	.4168	562.9	.6529-03
75	168.00	.37500	948.00	.4190-01	.5058-01	.5642-01	61.05	2.558	.4171	563.3	.6225-03
75	168.00	.38500	950.00	.3084-01	.3722-01	.4152-01	61.10	1.884	.4167	562.8	.4582-03
75	168.00	.39000	951.00	.3843-01	.4639-01	.5175-01	61.03	2.345	.4174	563.7	.5710-03
75	168.00	.39500	952.00	.4102-01	.4952-01	.5525-01	61.02	2.503	.4174	563.7	.6095-03
75	168.00	.40000	953.00	.4671-01	.5639-01	.6291-01	61.00	2.849	.4177	564.1	.6940-03
75	168.00	.40500	954.00	.5753-01	.6946-01	.7750-01	60.97	3.508	.4179	564.3	.8549-03
75	168.00	.41000	955.00	.6724-01	.8116-01	.9054-01	61.05	4.105	.4172	563.4	.9990-03
75	168.00	.41500	956.00	.8414-01	.1016	.1134	60.93	5.127	.4183	564.8	.1251-02
75	168.00	.42000	957.00	.9031-01	.1091	.1217	60.91	5.501	.4185	565.1	.1342-02
75	168.00	.42500	958.00	.7475-01	.9024-01	.1007	61.04	4.563	.4173	563.6	.1111-02
75	168.00	.43000	959.00	.1857	.2243	.2503	60.91	11.31	.4184	565.1	.2760-02
75	168.00	.44000	960.00	.1870	.2258	.2520	60.92	11.39	.4184	565.0	.2779-02
75	168.00	.44500	961.00	.1862	.2333	.2603	60.98	11.78	.4178	564.3	.2872-02
75	163.00	.45000	962.00	.1862	.2247	.2507	61.03	11.36	.4174	563.7	.2766-02
75	163.00	.45500	963.00	.1799	.2172	.2422	61.06	10.99	.4171	563.2	.2673-02
75	168.00	.46000	964.00	.1742	.2103	.2346	61.08	10.64	.4169	563.1	.2589-02
75	168.00	.47000	965.00	.1705	.2059	.2297	61.11	10.42	.4167	562.7	.2534-02
75	168.00	.48000	966.00	.1674	.2021	.2254	61.14	10.24	.4164	562.3	.2487-02
75	168.00	.49000	967.00	.1142	.1378	.1537	61.20	6.990	.4158	561.6	.1696-02
75	168.00	.50000	968.00	.5670-01	.6844-01	.7635-01	61.05	3.461	.4172	563.4	.8424-03
75	168.00	.50000	969.00	.6075-01	.7334-01	.8181-01	61.03	3.708	.4174	563.6	.9026-03
75	168.00	.57000	970.00	.6043-01	.7303-01	.8147-01	61.01	3.691	.4175	563.8	.8988-03
75	168.00	.58000	971.00	.9347-01	.1128	.1258	61.09	5.710	.4168	562.8	.1388-02
75	168.00	.59000	972.00	.1235	.1491	.1663	61.24	7.947	.4155	561.1	.1835-02
75	168.00	.60000	973.00	.1345	.1623	.1810	61.24	8.238	.4155	561.1	.1998-02
75	168.00	.61000	974.00	.9679-01	.1167	.1301	61.41	5.944	.4138	559.9	.1437-02
75	168.00	.62000	975.00	.1816	.2192	.2445	61.08	6.177	.4169	563.0	.2698-02
75	168.00	.63000	976.00	.1017	.1229	.1372	60.74	6.177	.4200	567.2	.1512-02
75	168.00	.64000	982.00	.9609-01	.1160	.1294	61.07	5.868	.4170	563.2	.1428-02
75	168.00	.65000	983.00	.1918	.2313	.2579	61.28	11.75	.4151	560.5	.2847-02
75	168.00	.66000	984.00	.3652	.4403	.4908	61.38	22.41	.4142	559.3	.5420-02
75	168.00	.67000	985.00	.3534	.4307	.4836	56.48	20.96	.4427	581.7	.5213-02
75	168.00	.68000	986.00	.3710	.4523	.5080	56.58	20.96	.4436	582.8	.5474-02
75	168.00	.69000	987.00	.3156	.3848	.4321	56.47	17.82	.4437	583.0	.4657-02
75	168.00	.70000	988.00	.2805	.3420	.3840	56.51	15.84	.4437	583.0	.4138-02
75	168.00	.71000	989.00	.3543	.4319	.4850	56.51	20.02	.4433	582.5	.5227-02
75	168.00	.72000	990.00	.1658	.2021	.2270	56.53	9.376	.4431	582.2	.2446-02
75	168.00	.73000	991.00	.9204-01	.1121	.1258	56.71	5.219	.4414	580.0	.1357-02
75	168.00	.74000	992.00	.3950-01	.4808-01	.5394-01	56.83	2.247	.4396	577.7	.5820-03

FINAL PAGE IS  
POOR QUALITY



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ARC3.5-211(1H48)OTS/NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/H1	TH DEG. R	STN NO R=0.9
71	180.00	.21000	608.00	.3082-01	.3750-01	.4206-01	56.98	1.756	.4388	576.6	.4539-03
71	180.00	.30000	610.00	.2021-01	.2456-01	.2752-01	57.33	1.158	.4355	572.2	.2973-03
71	180.00	.35000	611.00	.3734-01	.4547-01	.5102-01	56.82	2.122	.4404	578.7	.5503-03
71	180.00	.36000	612.00	.3496-01	.4259-01	.4780-01	56.72	1.983	.4413	579.9	.5195-03
71	180.00	.37000	613.00	.3556-01	.4332-01	.4863-01	56.64	2.014	.4420	580.8	.5243-03
71	180.00	.37500	614.00	.3580-01	.4363-01	.4899-01	56.59	2.026	.4426	581.5	.5280-03
71	180.00	.38000	615.00	.3552-01	.4330-01	.4862-01	56.54	2.009	.4430	582.1	.5240-03
71	180.00	.38500	616.00	.3582-01	.4364-01	.4904-01	56.48	2.023	.4436	582.9	.5284-03
71	180.00	.39000	617.00	.3731-01	.4549-01	.5109-01	56.44	2.105	.4440	583.4	.5505-03
71	180.00	.39500	618.00	.4102-01	.5001-01	.5616-01	56.45	2.315	.4439	583.3	.6052-03
71	180.00	.40000	619.00	.5121-01	.6245-01	.7015-01	56.40	2.888	.4444	583.9	.7558-03
71	180.00	.40500	620.00	.6386-01	.7789-01	.8750-01	56.35	3.599	.4448	584.5	.9425-03
71	180.00	.41000	621.00	.7816-01	.9534-01	.1071	56.33	4.403	.4454	584.7	.1308-02
71	180.00	.41500	622.00	.8863-01	.1081	.1215	56.29	4.989	.4454	585.2	.1625-02
71	180.00	.42500	624.00	.1101	.1343	.1509	56.26	6.194	.4456	585.6	.1926-02
71	180.00	.43000	625.00	.1305	.1592	.1788	56.32	7.349	.4451	584.8	.2989-02
71	180.00	.44000	626.00	.2025	.2470	.2775	56.32	11.41	.4451	584.9	.3110-02
71	180.00	.44500	627.00	.2107	.2570	.2887	56.33	11.87	.4450	584.7	.2790-02
71	180.00	.45000	628.00	.1891	.2306	.2590	56.37	10.66	.4445	584.0	.2390-02
71	180.00	.45500	629.00	.1620	.1975	.2219	56.33	9.133	.4444	583.9	.2075-02
71	180.00	.46000	630.00	.1406	.1715	.1926	56.45	5.931	.4439	583.3	.1550-02
71	180.00	.47000	631.00	.1051	.1281	.1439	56.54	5.478	.4430	582.1	.1103-02
71	180.00	.48000	632.00	.7480-01	.9116-01	.1024	56.64	4.229	.4420	580.8	.8714-03
71	180.00	.49000	633.00	.5909-01	.7200-01	.8082-01	56.64	3.347	.4405	578.8	.7622-03
71	180.00	.50000	634.00	.6624-01	.8065-01	.9050-01	56.81	3.763	.4405	577.4	.1719-02
71	180.00	.55000	635.00	.1167	.1420	.1593	56.91	6.639	.4394	584.9	.1436-02
71	180.00	.60000	636.00	.9726-01	.1186	.1333	56.32	5.478	.4451	585.8	.1129-02
71	180.00	.65000	637.00	.7645-01	.9328-01	.1048	56.25	4.300	.4458	582.2	.1084-02
71	180.00	.70000	638.00	.7352-01	.8961-01	.1006	56.53	4.156	.4431	582.4	.1101-02
71	180.00	.75000	639.00	.7468-01	.9094-01	.1020	56.79	4.241	.4406	579.0	.7836-03
71	180.00	.80000	640.00	.5313-01	.6474-01	.7268-01	56.61	3.008	.4424	581.3	.7816-03
71	180.00	.85000	641.00	.5299-01	.6458-01	.7251-01	56.55	2.997	.4429	582.0	.7528-03
71	180.00	.86000	642.00	.5103-01	.6220-01	.6985-01	56.53	2.885	.4431	582.2	.8997-03
71	180.00	.87000	643.00	.6099-01	.7434-01	.8348-01	56.52	3.447	.4432	582.4	.1733-02
71	180.00	.88000	644.00	.1175	.1432	.1608	56.51	6.641	.4433	582.4	.2782-02
71	180.00	.89000	645.00	.1886	.2298	.2580	56.61	10.68	.4424	581.3	.2395-02
71	180.00	.90000	646.00	.1625	.1978	.2220	56.77	9.223	.4408	579.2	.2644-02
71	180.00	.91000	647.00	.1933	.2349	.2636	56.84	10.97	.4401	575.4	.4576-03
71	180.00	.92000	648.00	.3108-01	.3780-01	.4239-01	57.08	1.845	.4379	578.3	.4784-03
71	180.00	.93000	649.00	.3246-01	.3952-01	.4435-01	56.83	1.947	.4403	578.5	.4784-03
71	191.25	.35000	650.00	.3426-01	.3952-01	.4435-01	56.83	1.845	.4403	578.5	.4784-03
71	191.25	.36000	651.00	.3429-01	.4176-01	.4686-01	56.77	1.947	.4408	579.2	.4784-03
71	191.25	.37000	652.00	.3577-01	.4356-01	.4889-01	56.73	2.029	.4412	579.7	.4784-03
71	191.25	.37500	653.00	.3523-01	.4290-01	.4815-01	56.72	1.998	.4413	579.8	.4784-03

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(RWSF10)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	OOT BTU/ FT2SEC	HJ/HT	TH DEG. R	STN NO R=0.9
71	191.25	39000	654.00	3510-01	4275-01	4798-01	56.73	1.991	4412	579.8	.0000
71	191.25	38500	655.00	3455-01	4209-01	4725-01	56.69	1.959	4416	580.2	.0000
71	191.25	39000	656.00	3437-01	4309-01	4837-01	56.64	2.003	4420	580.8	.0000
71	191.25	39500	657.00	3950-01	4814-01	5404-01	56.59	2.235	4425	581.5	.0000
71	191.25	40000	658.00	4553-01	5549-01	6230-01	56.56	2.575	4428	581.9	.0000
71	191.25	40500	659.00	5228-01	6371-01	7153-01	56.56	2.957	4428	581.9	.0000
71	191.25	41500	661.00	5637-01	6871-01	7716-01	56.53	3.187	4431	582.3	.0000
71	191.25	42000	662.00	7948-01	9689-01	1086	56.50	4.491	4434	582.6	.0000
71	191.25	42500	663.00	8898-01	1085	1218	56.50	5.627	4434	582.6	.0000
71	191.25	43000	664.00	1278	1557	1748	56.55	7.225	4429	582.0	.0000
71	191.25	44000	665.00	1426	1738	1951	56.57	8.068	4427	581.7	.0000
71	191.25	45000	666.00	9476-01	1155	1296	56.59	5.363	4425	581.4	.0000
71	191.25	45500	667.00	1058	1289	1448	56.53	5.979	4431	582.3	.0000
71	191.25	46000	668.00	1106	1347	1512	56.63	6.260	4422	581.0	.0000
71	191.25	47000	669.00	1119	1363	1530	56.67	6.339	4418	580.5	.0000
71	191.25	48000	670.00	1081	1317	1478	56.72	6.132	4413	579.9	.0000
71	191.25	49000	671.00	1110	1351	1516	56.82	6.305	4403	578.6	.0000
71	191.25	50000	672.00	1799	2189	2455	57.01	10.26	4385	576.2	.0000
71	191.25	60000	673.00	6736-01	8208-01	9215-01	56.62	3.814	4422	581.1	.0000
71	191.25	70000	674.00	6641-01	8087-01	9074-01	56.80	3.772	4405	578.9	.0000
72	191.25	85000	676.00	5831-01	7075-01	7919-01	58.34	3.402	4312	571.9	.8616-03
72	191.25	86000	677.00	4603-01	5585-01	6252-01	58.32	2.684	4314	572.1	.6801-03
72	191.25	87000	678.00	6818-01	8272-01	9260-01	58.33	3.977	4313	572.0	.1007-02
72	191.25	88000	679.00	9355-01	1135	1271	58.32	5.456	4314	572.2	.1382-02
72	191.25	89000	680.00	1248	1514	1695	58.39	7.287	4308	571.3	.1844-02
72	191.25	90000	681.00	1523	1846	2066	58.48	8.904	4299	570.1	.2249-02
72	191.25	91000	682.00	1214	1472	1646	58.62	7.117	4285	568.4	.1792-02
72	191.25	92600	683.00	9015-01	1094	1224	58.41	5.265	4306	571.1	.1332-02
72	191.25	95000	694.00	4197-01	5094-01	5704-01	58.24	2.444	4322	573.2	.6204-03
72	197.00	33000	685.00	3432-01	4162-01	4657-01	58.48	2.007	4299	570.1	.5069-03
72	197.00	34000	686.00	2994-01	3631-01	4053-01	58.50	1.751	4297	569.9	.4422-03
72	197.00	35000	687.00	2984-01	3619-01	4049-01	58.51	1.746	4296	569.8	.4407-03
72	197.00	36000	688.00	3088-01	3745-01	4190-01	58.51	1.807	4296	569.7	.4561-03
72	197.00	37000	689.00	2777-01	3365-01	3764-01	58.64	1.828	4284	568.1	.4099-03
72	197.00	37500	690.00	3098-01	3755-01	4200-01	58.66	1.817	4282	567.9	.4574-03
72	197.00	50000	691.00	2660	3223	3604	58.75	15.63	4274	566.8	.3926-02
72	197.00	60000	692.00	1006	1220	1365	58.59	5.896	4289	568.8	.1486-02
72	197.00	70000	693.00	1586	1923	2151	58.55	9.286	4292	569.3	.2342-02
72	197.00	80000	694.00	4308-01	5224-01	5846-01	58.48	2.519	4299	570.2	.6363-03
72	197.00	87000	695.00	7793-01	9453-01	1058	58.44	4.554	4303	570.7	.1151-02
72	197.00	92600	696.00	1196	1450	1623	58.48	6.993	4299	570.2	.1766-02
72	209.80	5000-01	697.00	6237-01	7561-01	8459-01	58.59	3.655	4288	568.8	.9210-03
72	209.80	30000-01	698.00	2474	2993	3343	59.17	14.64	4234	561.5	.3646-02

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(RANSF)01

RUN NUMBER	PHI	X/L	TC NO	H/MREF R=1.0	H/MREF R=0.9	H/MREF R=0.85	OREF BTU/ F12SEC	QOOT BTU/ F12SEC	HM/HT	TH DEG. F	STN NO R=0.9
72	209.80	.50000-01	699.00	.3184	.3953	.4305	59.13	18.83	.4238	562.0	.4694-02
72	209.80	.70000-01	700.00	.2861	.3461	.3867	59.13	16.91	.4238	562.1	.4217-02
72	209.80	.10000-00	701.00	.2260	.2734	.3054	59.22	13.38	.4229	560.9	.3331-02
72	209.80	.15000	702.00	.1004	.1215	.1357	59.18	5.941	.4233	561.4	.1480-02
72	209.80	.20000	703.00	.4194-01	.5079-01	.5678-01	58.90	2.471	.4259	564.8	.6188-03
72	209.80	.30000	704.00	.3156-01	.3326-01	.4281-01	58.57	1.849	.4291	569.0	.4661-03
72	209.80	.35000	705.00	.3568-01	.4326-01	.4841-01	58.53	2.089	.4294	569.5	.5270-03
72	209.80	.37500	706.00	.6599-01	.7997-01	.8944-01	58.70	3.874	.4278	567.4	.9741-03
72	209.80	.50000	707.00	.1270	.1538	.1720	58.83	7.471	.4266	565.8	.1874-02
72	209.80	.60000	708.00	.6142-01	.7443-01	.8325-01	58.69	3.605	.4279	567.5	.9067-03
72	209.80	.70000	709.00	.6486-01	.7860-01	.8790-01	58.71	3.808	.4277	567.3	.9574-03
72	209.80	.80000	710.00	.2597-01	.3148-01	.3521-01	58.65	1.523	.4263	568.1	.3834-03
72	209.80	.87000	711.00	.3951-01	.4789-01	.5357-01	58.66	2.318	.4282	568.0	.5933-03
72	209.80	.92600	712.00	.8030-01	.9733-01	.1089	58.63	4.708	.4285	568.3	.1185-02
72	217.70	.15000-01	713.00	.6826-01	.8276-01	.9260-01	58.54	3.996	.4293	569.4	.1008-02
72	217.70	.30000-01	714.00	.2436	.2947	.3292	59.20	14.42	.4231	561.1	.3591-02
72	217.70	.50000-01	715.00	.2775	.3358	.3753	59.07	16.39	.4243	562.7	.4092-02
72	217.70	.70000-01	716.00	.3051	.3690	.4122	59.21	18.06	.4230	561.0	.4496-02
72	217.70	.10000-00	717.00	.1578	.1908	.2131	59.27	9.352	.4224	560.2	.2325-02
72	217.70	.15000	718.00	.1014	.1226	.1370	59.22	6.004	.4229	560.9	.1494-02
72	217.70	.20000	719.00	.3656-01	.4426-01	.4946-01	58.98	2.156	.4252	563.9	.5392-03
72	217.70	.30000	720.00	.2467-01	.2990-01	.3344-01	58.64	1.446	.4284	568.2	.3642-03
72	217.70	.35000	721.00	.4975-01	.6031-01	.6747-01	58.56	2.913	.4291	569.1	.7346-03
72	217.70	.37500	722.00	.3750-01	.4545-01	.5083-01	58.69	2.201	.4279	567.5	.5536-03
72	217.70	.50000	723.00	.9522-01	.1154	.1290	58.78	5.597	.4271	566.4	.1405-02
72	217.70	.60000	724.00	.5160-01	.6253-01	.6994-01	58.70	3.029	.4279	567.4	.7617-03
72	217.70	.70000	725.00	.3905-01	.4732-01	.5292-01	58.70	2.292	.4278	567.4	.5764-03
72	217.70	.80000	726.00	.2042-01	.2475-01	.2769-01	58.65	1.198	.4283	568.0	.3015-03
72	217.70	.87000	727.00	.3472-01	.4206-01	.4703-01	58.60	2.042	.4269	566.1	.5123-03
72	217.70	.92600	728.00	.9355-01	.1134	.1268	58.71	5.492	.4277	567.3	.1381-02

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APES 3.5-211 1148

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(R08F11)

EXTERNAL TANK

ARC3.5-211(1148)OT /NIPPLE/P/TRIP

EXT TANK

PARAMETRIC DATA

ALPHA = -5.000 BETA = -5.000 RN/L = 5.000

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	MT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
78	-5.000	-5.000	5.300	5.003	404.5	1299.	317.1	.5336	199.7	.2242-03	3671.	.1750-01
79	-5.000	-5.000	5.300	5.008	404.5	1298.	317.0	.5336	199.6	.2243-03	3670.	.1750-01
80	-5.000	-5.000	5.300	4.944	405.7	1311.	320.2	.5348	201.7	.2225-03	3689.	.1750-01
81	-5.000	-5.000	5.300	4.899	404.5	1316.	321.6	.5331	202.5	.2209-03	3697.	.1750-01
82	-5.000	-5.000	5.300	4.917	405.6	1315.	321.4	.5346	202.4	.2216-03	3696.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	K/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HM/MT	TM DEG. R	STN NO R=0.9
79	.00000	.30000-02	730.00	.3217	.3896	.4355	58.59	18.85	.4262	562.9	.4737-02
79	.00000	.10000-01	731.00	.5288-01	.6396-01	.7144-01	58.97	3.118	.4226	558.2	.7773-03
79	.00000	.50000-01	732.00	.2320-01	.2803-01	.3128-01	59.27	1.375	.4197	554.4	.3410-03
79	.00000	.25000-01	734.00	.2269	.2737	.3052	59.76	13.56	.4151	548.3	.3331-02
79	.00000	.30000-01	735.00	.3534	.4262	.4751	59.81	21.14	.4146	547.7	.5186-02
79	.00000	.40000-01	737.00	.3552	.4287	.4781	59.65	21.19	.4161	549.7	.5216-02
79	.00000	.45000-01	738.00	.3602	.4348	.4850	59.56	21.45	.4170	550.8	.5290-02
79	.00000	.60000-01	739.00	.3336	.4027	.4493	59.54	19.86	.4172	551.1	.4900-02
79	.00000	.70000-01	740.00	.2938	.3546	.3955	59.62	17.52	.4164	550.0	.4315-02
79	.00000	.80000-01	741.00	.3262	.3935	.4388	59.72	19.48	.4155	548.8	.4788-02
79	.00000	.10000-00	742.00	.1825	.2200	.2453	59.84	10.92	.4143	547.3	.2678-02
79	.00000	.15000	743.00	.1330	.1603	.1786	59.99	7.977	.4129	545.4	.1951-02
79	.00000	.15000	744.00	.1008	.1215	.1353	60.09	6.059	.4119	544.1	.1478-02
79	.00000	.17500	745.00	.6064-01	.7305-01	.8138-01	60.14	3.647	.4115	543.6	.8891-03
79	.00000	.20000	746.00	.3829-01	.4615-01	.5142-01	60.01	2.298	.4127	545.2	.5616-03
79	.00000	.22500	747.00	.3169-01	.3820-01	.4258-01	59.90	1.898	.4137	546.5	.4649-03
79	.00000	.25000	748.00	.2147-01	.2589-01	.2887-01	59.76	1.283	.4150	548.2	.3151-03
79	.00000	.27500	749.00	.2267-01	.2734-01	.3048-01	59.77	1.355	.4150	548.2	.3327-03
79	.00000	.30000	750.00	.1687-01	.2032-01	.2264-01	60.09	1.013	.4120	544.2	.2473-03
79	.00000	.32500	751.00	.2101-01	.2533-01	.2823-01	59.95	1.260	.4133	545.9	.3082-03
79	.00000	.35000	752.00	.2305-01	.2785-01	.3109-01	59.96	1.382	.4201	560.7	.3404-03
80	.00000	.40000	753.00	.2310-01	.2794-01	.3120-01	59.78	1.381	.4218	562.9	.3415-03
80	.00000	.50000	754.00	.2188-01	.2646-01	.2955-01	59.76	1.307	.4220	563.2	.3234-03

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AVES 3.5-211 IM-9

ARC3.5-211IM-910T

NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	MM/HT	TH DEG. R	STN NO R-0.8
80	.00000	.60000	755.00	.1906-01	.2311-01	.2585-01	59.05	1.126	.4286	572.0	.2823-03
80	.00000	.70000	756.00	.2174-01	.2634-01	.2947-01	59.09	1.284	.4283	571.6	.3219-03
80	.00000	.80000	757.00	.1913-01	.2321-01	.2598-01	58.80	1.125	.4310	575.2	.2835-03
80	.00000	.90000	758.00	.1730-01	.2096-01	.2343-01	59.32	1.026	.4261	568.7	.2561-03
80	.55.000	.22000	759.00	.5426-01	.6554-01	.7315-01	60.06	3.258	.4192	559.5	.8012-03
80	.55.000	.25000	760.00	.3926-01	.4729-01	.5267-01	60.92	2.392	.4111	548.7	.5783-03
80	.55.000	.27000	761.00	.5234-01	.6301-01	.7015-01	61.11	3.198	.4093	546.3	.7707-03
80	.55.000	.30000	762.00	.4690-01	.5558-01	.6310-01	60.42	2.833	.4158	554.9	.6918-03
80	.55.000	.32000	763.00	.4585-01	.5537-01	.6179-01	60.14	2.758	.4184	558.4	.6770-03
80	.55.000	.34000	764.00	.4397-01	.5311-01	.5928-01	60.05	2.640	.4193	559.6	.6493-03
80	.55.000	.36000	765.00	.4306-01	.5203-01	.5808-01	59.97	2.583	.4200	560.5	.6351-03
80	.55.000	.38000	766.00	.4152-01	.5018-01	.5602-01	59.92	2.488	.4204	561.1	.6134-03
80	.55.000	.40000	767.00	.4057-01	.4905-01	.5476-01	59.84	2.428	.4212	562.2	.5995-03
80	.67.500	.23000	768.00	.5747-01	.6940-01	.7743-01	60.16	3.458	.4182	558.1	.8484-03
80	.67.500	.25000	769.00	.4265-01	.5138-01	.5723-01	60.93	2.599	.4110	546.6	.6284-03
80	.67.500	.27000	770.00	.6317-01	.7605-01	.8468-01	61.08	3.858	.4096	546.7	.9302-03
80	.67.500	.29000	771.00	.4938-01	.5948-01	.6326-01	60.91	3.007	.4112	548.8	.7274-03
80	.67.500	.30000	772.00	.5057-01	.6099-01	.6401-01	60.50	3.059	.4150	553.9	.7458-03
80	.67.500	.31000	773.00	.5026-01	.6066-01	.6362-01	60.32	3.032	.4167	555.1	.7417-03
80	.67.500	.32000	774.00	.4971-01	.6002-01	.6696-01	60.21	2.993	.4177	557.5	.7338-03
80	.67.500	.32500	775.00	.5011-01	.6050-01	.6750-01	60.20	3.017	.4178	557.6	.7396-03
80	.67.500	.33000	776.00	.4977-01	.6010-01	.6706-01	60.16	2.994	.4182	558.2	.7348-03
80	.67.500	.33500	777.00	.5018-01	.6061-01	.6763-01	60.13	3.018	.4185	558.6	.7409-03
80	.67.500	.34000	778.00	.4986-01	.6021-01	.6719-01	60.13	2.998	.4185	558.5	.7361-03
80	.67.500	.34500	779.00	.4936-01	.5900-01	.6584-01	60.11	2.936	.4187	558.8	.7213-03
80	.67.500	.35000	780.00	.4936-01	.5962-01	.6654-01	60.10	2.967	.4188	558.9	.7289-03
80	.67.500	.35500	781.00	.4921-01	.5952-01	.6642-01	60.11	2.963	.4187	558.8	.7277-03
80	.67.500	.36000	782.00	.4813-01	.5911-01	.6597-01	60.07	2.940	.4190	559.2	.7226-03
80	.67.500	.36500	783.00	.4819-01	.5851-01	.6553-01	58.56	2.822	.4332	578.1	.7147-03
80	.67.500	.37000	784.00	.4426-01	.5345-01	.5965-01	60.11	2.660	.4187	558.8	.6534-03
80	.67.500	.37500	785.00	.4772-01	.5763-01	.6432-01	60.09	2.867	.4191	559.1	.7046-03
80	.67.500	.38000	786.00	.4777-01	.5771-01	.6440-01	60.06	2.869	.4191	559.4	.7054-03
80	.67.500	.39000	787.00	.4612-01	.5573-01	.6220-01	60.00	2.767	.4197	560.2	.6812-03
80	.67.500	.39500	788.00	.4290-01	.5184-01	.5787-01	59.96	2.572	.4201	560.6	.6337-03
80	.67.500	.40000	789.00	.4337-01	.5240-01	.5849-01	59.99	2.602	.4190	560.3	.6406-03
80	.67.500	.40500	790.00	.4166-01	.5048-01	.5645-01	59.17	2.465	.4275	570.5	.6168-03
80	.67.500	.41000	791.00	.3052-01	.3696-01	.4133-01	59.28	1.809	.4264	569.1	.4517-03
80	.67.500	.41500	792.00	.3305-01	.4005-01	.4480-01	59.11	1.953	.4281	571.3	.4894-03
80	.67.500	.42000	793.00	.3411-01	.4126-01	.4608-01	59.70	2.037	.4225	563.9	.5043-03
80	.67.500	.42500	794.00	.7069-01	.8508-01	.9472-01	61.18	3.325	.4086	545.4	.1041-02
80	.78.000	.27000	795.00	.5472-01	.6590-01	.7339-01	61.00	3.338	.4104	547.7	.8060-03
80	.78.000	.29000	796.00	.5633-01	.6792-01	.7571-01	60.62	3.415	.4139	552.4	.8308-03
80	.78.000	.31000	797.00	.5529-01	.6669-01	.7436-01	60.47	3.343	.4153	554.3	.8155-03

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AMES 3.5-211 IH48

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IR48F111)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/H1	TH DEG. F	STN NO R=0.9
80	78.000	.32000	799.00	.5452-01	.6578-01	.7336-01	60.41	3.293	.4159	555.1	.8043-03
80	78.000	.32500	799.00	.5261-01	.6348-01	.7060-01	60.38	3.176	.4162	555.4	.7762-03
80	78.000	.33000	800.00	.5261-01	.6349-01	.7081-01	60.36	3.175	.4164	555.7	.7763-03
80	78.000	.33500	801.00	.5236-01	.6319-01	.7048-01	60.33	3.159	.4166	556.0	.7726-03
80	78.000	.34000	802.00	.5082-01	.6133-01	.6841-01	60.33	3.066	.4166	556.0	.7499-03
80	78.000	.34500	803.00	.5133-01	.6151-01	.6910-01	60.32	3.097	.4167	556.1	.7575-03
80	78.000	.35000	804.00	.5208-01	.6201-01	.7012-01	60.30	3.141	.4169	556.5	.7686-03
80	78.000	.35500	805.00	.5304-01	.6400-01	.7138-01	60.39	3.203	.4161	556.3	.7625-03
80	79.000	.36000	806.00	.5611-01	.6772-01	.7554-01	60.30	3.383	.4169	556.4	.8230-03
80	78.000	.36500	807.00	.5504-01	.6643-01	.7410-01	60.31	3.319	.4168	556.3	.8122-03
80	78.000	.37000	808.00	.5088-01	.6142-01	.6851-01	60.27	3.067	.4171	556.6	.7509-03
80	78.000	.37500	809.00	.4730-01	.5710-01	.6369-01	60.28	2.851	.4172	556.8	.6981-03
80	78.000	.38000	810.00	.4489-01	.5419-01	.6045-01	60.26	2.705	.4172	556.9	.6626-03
80	78.000	.39000	811.00	.4573-01	.5520-01	.6158-01	60.25	2.755	.4174	557.1	.6749-03
80	78.000	.40000	812.00	.4728-01	.5708-01	.6369-01	60.20	2.846	.4178	557.6	.6979-03
80	78.000	.40000-01	813.00	.4973	.5995	.6681	60.90	30.28	.4134	553.7	.7348-02
82	90.000	.40000-01	814.00	.4931	.5948	.6632	60.70	29.94	.4152	556.1	.7250-02
82	90.000	.50000-01	815.00	.4631	.5588	.6232	60.58	28.05	.4163	557.9	.6848-02
82	90.000	.70000-01	816.00	.4488	.5416	.6041	60.55	27.18	.4166	557.7	.6638-02
82	90.000	.80000-01	817.00	.5544	.6835	.7623	60.53	34.31	.4164	557.2	.8376-02
82	90.000	.10000-00	818.00	.3309	.3993	.4453	60.61	20.06	.4160	557.4	.4694-02
82	90.000	.15000	819.00	.1813	.2187	.2439	60.60	10.98	.4162	557.4	.2680-02
80	90.000	.20100	820.00	.6859-01	.8277-01	.9232-01	60.35	4.139	.4165	555.8	.1012-02
80	90.000	.24100	821.00	.5841-01	.7165-01	.7988-01	60.56	3.598	.4145	553.2	.8762-03
80	90.000	.25000	822.00	.4873-01	.5867-01	.6533-01	61.09	2.977	.4095	546.6	.7176-03
80	90.000	.27000	823.00	.6854-01	.8248-01	.9181-01	61.24	4.197	.4081	544.7	.1009-02
80	90.000	.29000	824.00	.5826-01	.7139-01	.7951-01	60.94	3.611	.4109	548.4	.8730-03
80	90.000	.30000	825.00	.6391-01	.7706-01	.8589-01	60.63	3.875	.4138	552.3	.9423-03
80	90.000	.31000	826.00	.5906-01	.7124-01	.7942-01	60.51	3.573	.4150	553.8	.8711-03
80	90.000	.32000	827.00	.5750-01	.6937-01	.7735-01	60.44	3.475	.4156	554.7	.8482-03
80	90.000	.32500	828.00	.6088-01	.7347-01	.8193-01	60.37	3.676	.4162	555.5	.6983-03
80	90.000	.33000	829.00	.5708-01	.6887-01	.7681-01	60.40	3.448	.4160	555.2	.8421-03
80	90.000	.33500	830.00	.5719-01	.6900-01	.7694-01	60.41	3.455	.4158	555.0	.8436-03
80	90.000	.34000	831.00	.5846-01	.7054-01	.7857-01	60.38	3.530	.4162	555.5	.6625-03
80	90.000	.34500	832.00	.8217-01	.9916-01	.1106	60.36	4.961	.4162	555.5	.1212-02
80	90.000	.35000	833.00	.1531	.1847	.2060	60.36	4.961	.4163	555.6	.2259-02
80	90.000	.35500	834.00	.8272-01	.1002	.1120	59.47	4.919	.4264	571.9	.1229-02
80	90.000	.36000	835.00	.7053-01	.8557-01	.9567-01	59.48	4.203	.4262	571.3	.1050-02
80	90.000	.36500	836.00	.7134-01	.8640-01	.9659-01	59.49	4.244	.4261	571.1	.1060-02
80	90.000	.37000	837.00	.7084-01	.8579-01	.9591-01	59.48	4.213	.4263	571.3	.1053-02
80	90.000	.37500	838.00	.6542-01	.7922-01	.8857-01	59.48	4.263	.4262	571.2	.9721-03
80	90.000	.38000	839.00	.5612-01	.6797-01	.7600-01	59.46	3.337	.4265	571.6	.8340-03
80	90.000	.39000	840.00	.5233-01	.6337-01	.7085-01	59.47	3.112	.4264	571.5	.7750-03

DATE 05 MAR 5

AMES 3.5-211 1M48

ARC3.5-211(1M48)OT /NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORCF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H/H/HT	TM DEO. R	STN NO R=0.9
81	90.000	.50000	835.00	.5417-01	.6559-01	.7332-01	59.52	3.224	.4259	570.8	.8048-03
81	90.000	.60000	836.00	.4230-01	.5130-01	.5740-01	59.09	2.500	.4298	576.1	.6293-03
81	90.000	.70000	837.00	.4722-01	.5722-01	.6400-01	59.30	2.800	.4279	573.6	.7020-03
81	90.000	.80000	838.00	.5930-01	.7190-01	.8044-01	59.16	3.508	.4292	575.3	.8820-03
81	90.000	.90000	839.00	.9530-01	.6695-01	.7483-01	59.60	3.296	.4252	569.8	.8215-03
81	112.50	.23000	840.00	.6810-01	.8244-01	.9214-01	59.61	4.059	.4251	569.7	.1012-02
81	112.50	.25000	841.00	.9833-01	.7048-01	.7867-01	60.16	3.509	.4199	562.7	.8650-03
81	112.50	.27000	842.00	.2019-01	.2437-01	.2719-01	60.47	1.221	.4170	558.9	.2992-03
81	112.50	.30000	843.00	.6653-01	.8050-01	.8994-01	59.75	3.975	.4237	567.9	.5879-03
81	112.50	.33000	844.00	.6371-01	.7714-01	.8622-01	59.56	3.794	.4255	570.4	.9465-03
81	112.50	.35000	845.00	.6241-01	.7557-01	.8447-01	59.55	3.716	.4256	570.5	.9273-03
81	112.50	.37000	846.00	.6167-01	.7466-01	.8345-01	59.57	3.674	.4254	570.1	.8912-03
81	112.50	.40000	847.00	.5999-01	.7263-01	.8119-01	59.57	3.574	.4254	570.1	.8912-03
81	112.50	.45000	848.00	.6029-01	.7293-01	.8159-01	59.56	3.590	.4255	570.3	.8956-03
81	112.50	.50000	849.00	.6311-01	.8242-01	.9210-01	59.71	4.067	.4241	568.4	.1011-02
81	112.50	.55000	850.00	.5341-01	.6464-01	.7220-01	59.85	3.199	.4227	566.6	.7932-03
81	112.50	.60000	851.00	.6130-01	.7427-01	.8306-01	59.35	3.638	.4275	572.9	.9112-03
81	112.50	.65000	852.00	.6960-01	.8434-01	.9433-01	59.29	4.127	.4280	573.7	.1035-02
81	112.50	.70000	853.00	.9400-01	.1138	.1273	59.47	5.590	.4263	571.4	.1397-02
81	112.50	.75000	854.00	.8015-01	.9697-01	.1083	59.78	4.792	.4234	567.5	.1193-02
81	112.50	.80000	855.00	.7150-01	.8666-01	.9692-01	59.28	4.239	.4281	573.7	.1067-02
81	112.50	.90000	856.00	.5274-01	.6387-01	.7141-01	59.47	3.136	.4263	571.4	.7837-03
81	125.40	.84000	857.00	.9199-01	.1187	.1327	59.39	5.820	.4270	572.7	.1456-02
81	125.40	.85000	858.00	.9728-01	.1179	.1318	59.37	5.776	.4273	574.1	.1446-02
81	125.40	.86000	859.00	.7543-01	.9143-01	.1023	59.26	4.470	.4283	574.4	.1122-02
81	125.40	.87000	860.00	.6259-01	.7566-01	.8486-01	59.23	3.707	.4286	574.4	.9307-03
81	125.40	.88000	861.00	.4665-01	.5899-01	.6600-01	59.19	2.880	.4290	575.0	.7237-03
81	125.40	.89000	862.00	.5160-01	.6256-01	.6999-01	59.16	3.053	.4292	575.2	.7674-03
81	125.40	.90000	863.00	.5097-01	.6176-01	.6907-01	59.32	3.023	.4277	573.3	.7577-03
81	125.40	.91000	864.00	.4986-01	.6035-01	.6747-01	59.56	2.970	.4255	570.3	.7407-03
81	125.40	.92000	865.00	.7118-01	.8872-01	.9326-01	59.17	4.330	.4291	575.1	.1088-02
81	129.30	.86000	866.00	.7088-01	.8688-01	.9605-01	59.32	4.204	.4277	573.3	.1054-02
81	129.30	.87000	867.00	.7341-01	.8899-01	.9953-01	59.26	4.350	.4283	574.1	.1092-02
81	129.30	.88000	868.00	.6628-01	.8030-01	.8980-01	59.38	3.936	.4272	572.6	.9552-03
81	129.30	.89000	869.00	.8201-01	.9935-01	.1111	59.42	4.873	.4268	572.0	.1219-03
81	135.00	.40000-01	870.00	.5625	.6795	.7584	60.35	33.89	.4191	561.7	.8341-02
81	135.00	.50000-01	871.00	.5380	.6745	.7531	60.02	33.49	.4212	564.6	.8278-02
81	135.00	.60000-01	872.00	.5082	.6145	.6863	59.94	30.46	.4220	565.6	.7542-02
81	135.00	.70000-01	873.00	.4900	.5924	.6616	59.95	29.37	.4218	565.4	.7271-02
81	135.00	.80000-01	874.00	.3303	.3992	.4458	60.02	19.82	.4212	564.6	.4900-02
81	135.00	.90000-01	875.00	.2027	.2451	.2737	59.97	12.16	.4217	565.2	.3008-02
81	135.00	.15000	876.00	.1122	.1357	.1516	59.85	6.714	.4228	566.6	.1655-02
81	135.00	.20000	877.00	.6516-01	.8006-01	.8945-01	59.75	3.953	.4237	568.0	.9924-03
81	135.00	.35000	878.00								

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ARC3.5-21111M810T /NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/AREF R=1.0	H/AREF R=0.9	H/AREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
81	135.00	.40000	879.00	.6227-01	.7775-01	.8688-01	59.76	3.841	.4237	567.8	.9543-03
81	135.00	.50000	880.00	.1135	.1374	.1534	60.00	6.819	.4214	564.8	.1686-02
81	135.00	.55000	881.00	.1314	.1588	.1772	60.18	7.908	.4197	562.6	.1949-02
81	135.00	.60000	882.00	.1152	.1394	.1558	59.74	6.883	.4238	558.0	.1711-02
81	135.00	.65000	883.00	.1168	.1414	.1580	59.70	6.973	.4242	568.6	.1735-02
81	135.00	.70000	884.00	.9053-01	.1095	.1224	59.79	5.413	.4233	567.4	.1344-02
81	135.00	.75000	885.00	.7858-01	.9503-01	.1061	59.89	4.706	.4224	566.2	.1166-02
81	135.00	.80000	886.00	.8337-01	.1010	.1129	59.41	4.953	.4269	572.2	.1239-02
81	135.00	.85000	887.00	.1501	.1318	.2032	59.48	8.928	.4262	571.3	.2231-02
81	135.00	.85000	888.00	.1728	.2033	.2339	59.47	10.27	.4263	571.4	.2557-02
81	135.00	.85000	889.00	.1084	.1313	.1460	59.36	6.435	.4273	572.8	.1611-02
81	135.00	.85000	890.00	.8844-01	.1072	.1199	59.25	5.240	.4284	574.2	.1315-02
81	135.00	.85000	891.00	.7907-01	.9586-01	.1072	59.18	4.679	.4290	575.0	.1176-02
81	135.00	.85000	892.00	.5645-01	.6838-01	.7650-01	59.18	3.338	.4291	575.1	.9388-03
81	135.00	.85000	893.00	.7498-01	.1465	.1637	59.32	4.447	.4278	573.3	.1115-02
81	135.00	.85000	894.00	.1211	.1468	.1643	59.17	7.166	.4292	575.2	.1738-02
81	135.00	.85000	895.00	.3053-01	.3718-01	.4163-01	58.82	1.801	.4325	579.2	.4559-03
81	135.00	.85000	896.00	.8755-01	.1059	.1183	59.80	5.236	.4232	567.3	.1300-02
81	135.00	.85000	897.00	.1092	.1321	.1475	59.94	6.546	.4220	565.6	.1621-02
81	135.00	.85000	898.00	.6885-01	.8082-01	.9025-01	59.99	4.011	.4215	564.9	.9919-03
81	135.00	.85000	899.00	.1262	.1526	.1703	60.08	8.729	.4206	563.8	.1873-02
81	135.00	.85000	900.00	.1457	.1763	.1959	60.08	7.65	.4224	566.1	.2163-02
81	135.00	.85000	901.00	.1278	.1545	.1725	59.95	7.65	.4219	565.5	.1656-02
81	135.00	.85000	902.00	.3995	.4834	.5401	59.78	23.88	.4238	567.7	.9921-02
81	135.00	.85000	903.00	.3102	.3749	.4186	60.12	18.65	.4206	563.4	.5933-02
81	135.00	.85000	904.00	.4519	.5454	.6084	60.51	27.34	.4170	566.4	.1255-02
81	135.00	.85000	905.00	.4817	.5814	.6485	60.55	29.17	.4166	568.0	.732-02
81	135.00	.85000	906.00	.3200	.3861	.4306	60.61	19.39	.4162	557.4	.732-02
81	135.00	.85000	907.00	.1039	.1254	.1398	60.61	6.297	.4161	557.3	.1536-02
81	135.00	.85000	908.00	.1208	.1456	.1623	60.87	7.354	.4136	554.0	.1785-02
81	135.00	.85000	909.00	.6785-01	.8201-01	.9155-01	60.13	4.086	.4205	563.2	.1005-02
81	135.00	.85000	910.00	.6502-01	.8222-01	.9181-01	60.07	4.086	.4211	564.0	.1007-02
81	135.00	.85000	911.00	.6693-01	.8099-01	.9044-01	60.04	4.022	.4214	564.4	.9922-03
81	135.00	.85000	912.00	.6442-01	.7789-01	.8699-01	60.00	3.855	.4217	564.8	.9542-03
81	135.00	.85000	913.00	.8005-01	.9676-01	.1080	60.10	4.812	.4208	563.6	.1153-02
81	135.00	.85000	914.00	.1081	.1305	.1456	60.39	6.526	.4181	559.9	.1599-02
81	135.00	.85000	915.00	.1104	.1331	.1484	60.77	6.706	.4146	555.3	.1531-02
81	135.00	.85000	916.00	.2026	.2447	.2731	60.25	12.20	.4134	561.8	.2998-02
81	135.00	.85000	917.00	.1182	.1426	.1589	60.83	7.192	.4140	564.5	.1747-02
81	135.00	.85000	918.00	.1112	.1341	.1495	60.81	6.764	.4141	564.7	.1644-02
81	135.00	.85000	919.00	.1781	.2149	.2395	60.75	10.82	.4147	565.5	.2633-02
81	135.00	.85000	920.00	.2207	.2661	.2967	60.79	13.41	.4144	565.0	.3561-02



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RUN NUMBER	PHI	X/L	TC NO	H/AREF R=1.0	H/AREF R=0.9	H/AREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
82	163.12	.44500	939.00	.2713	.3270	.3644	60.91	16.52	.4133	553.5	.4008-02
82	163.12	.45000	940.00	.2702	.3257	.3630	60.93	16.47	.4131	553.3	.3993-02
82	163.12	.50000	941.00	.1407	.1694	.1887	61.31	8.629	.4095	548.4	.2077-02
82	163.12	.60000	942.00	.9836-01	.1186	.1321	60.95	5.995	.4129	553.0	.1453-02
82	163.12	.70000	943.00	.8828-01	.1064	.1186	60.97	5.382	.4127	552.8	.1304-02
82	163.12	.80000	944.00	.7578-01	.9152-01	.1021	60.35	4.574	.4185	560.5	.1121-02
82	168.00	.35000	945.00	.6030-01	.7272-01	.8106-01	60.81	3.667	.4142	554.7	.8912-03
82	168.00	.36000	946.00	.5359-01	.7198-01	.8023-01	60.82	3.631	.4140	554.6	.8822-03
82	168.00	.37000	947.00	.5843-01	.7051-01	.7854-01	60.84	3.558	.4139	554.4	.8642-03
82	168.00	.37500	948.00	.5843-01	.7046-01	.7854-01	60.82	3.554	.4141	554.6	.8635-03
82	168.00	.38500	950.00	.4910-01	.5918-01	.6595-01	60.96	2.994	.4127	552.8	.7254-03
82	169.00	.39000	951.00	.5602-01	.6755-01	.7529-01	60.84	3.408	.4139	554.4	.8279-03
82	169.00	.39500	952.00	.5535-01	.6574-01	.7440-01	60.84	3.368	.4139	554.4	.8180-03
82	168.00	.40000	953.00	.5657-01	.6822-01	.7604-01	60.82	3.441	.4141	554.6	.8361-03
82	168.00	.40500	954.00	.7971-01	.9612-01	.1071	60.81	4.847	.4142	554.7	.1178-02
82	168.00	.41000	955.00	.9642-01	.1162	.1295	60.92	5.873	.4142	553.4	.1425-02
82	168.00	.41500	956.00	.1065	.1284	.1432	60.80	6.475	.4132	554.9	.1574-02
82	168.00	.42000	957.00	.1137	.1371	.1529	60.77	6.910	.4145	555.2	.1680-02
82	168.00	.42500	958.00	.1240	.1495	.1666	60.91	7.554	.4132	553.5	.1832-02
82	168.00	.43000	959.00	.2975	.3588	.3999	60.82	19.20	.4141	554.6	.4397-02
82	168.00	.44000	960.00	.3155	.3204	.4240	60.85	12.25	.4138	553.3	.4662-02
82	168.00	.44500	961.00	.2011	.2424	.2701	60.93	11.03	.4131	554.3	.2971-02
82	168.00	.45000	962.00	.1803	.2180	.2429	60.97	11.03	.4127	552.8	.2672-02
82	168.00	.45500	963.00	.2150	.2591	.2886	61.03	13.12	.4121	551.9	.3175-02
82	168.00	.46000	964.00	.2184	.2631	.2931	61.07	13.33	.4118	551.5	.3225-02
82	168.00	.46500	965.00	.2155	.2596	.2892	61.11	13.17	.4114	551.0	.3183-02
82	168.00	.47000	966.00	.1685	.2030	.2261	61.17	10.31	.4108	550.3	.2463-02
82	168.00	.48000	967.00	.9302-01	.1192	.1328	61.27	6.067	.4108	549.0	.1462-02
82	169.00	.49000	968.00	.7628-01	.9212-01	.1028	60.36	4.605	.4099	550.3	.1129-02
82	168.00	.85000	969.00	.7798-01	.9419-01	.1051	60.21	4.703	.4188	560.9	.1154-02
82	168.00	.85000	970.00	.7657-01	.9505-01	.1063	60.21	4.737	.4197	562.2	.1165-02
82	169.00	.87000	971.00	.7810-01	.9433-01	.1053	60.32	4.711	.4187	560.8	.1156-02
82	168.00	.89000	972.00	.1104	.1333	.1488	60.34	6.663	.4185	560.6	.1634-02
82	168.00	.90000	973.00	.1672	.2017	.2249	60.63	10.13	.4159	557.0	.2472-02
82	168.00	.91000	974.00	.1764	.2126	.2368	61.02	10.76	.4122	552.2	.2606-02
82	168.00	.92000	975.00	.2051	.2475	.2761	60.58	12.43	.4163	557.6	.3033-02
82	168.00	.93000	976.00	.1279	.1545	.1726	60.04	17.04	.4213	564.3	.1894-02
82	168.00	.94000	977.00	.2819	.3403	.3796	60.47	43.15	.4174	559.0	.4170-02
82	181.00	.20000-01	983.00	.7109	.8575	.9561	60.70	46.11	.4152	556.1	.1031-01
82	180.00	.30000-01	984.00	.7595	.9146	.1020	60.80	33.32	.4143	554.9	.1121-01
78	180.00	.40000-01	600.00	.5654	.6839	.7641	58.93	30.74	.4233	559.5	.8322-02
78	180.00	.50000-01	601.00	.5229	.6330	.7074	58.78	28.29	.4247	561.4	.7701-02
78	181.00	.60000-01	602.00	.4819	.5934	.6521	58.71		.4253	562.2	.7097-02

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OF POOR QUALITY

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EXT TANK

ARC3.5-21111M43OT /NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	ORET BTU/ FT2SEC	ODOT BTU/ FT2SEC	H/WHT	TH DEG. R	STN NO R=0.9
78	180.00	.70000-01	603.00	.4667	.5531	.6317	58.69	27.39	.4256	562.3	.6873-02
78	180.00	.80000-01	604.00	.5206	.6303	.7045	58.70	30.56	.4254	562.3	.7668-02
78	180.00	.10000-03	605.00	.2357	.3459	.3857	58.67	16.76	.4257	562.7	.4208-02
78	180.00	.15000	606.00	.1860	.2253	.2518	58.67	10.91	.4258	562.8	.2711-02
78	180.00	.20000	607.00	.1009	.1222	.1366	58.59	5.910	.4265	563.7	.1456-02
78	180.00	.21000	608.00	.8165-01	.9889-01	.1106	58.60	4.785	.4264	563.6	.1303-02
78	180.00	.30000	610.00	.5951-01	.7204-01	.8051-01	58.77	3.497	.4248	561.5	.8764-03
78	180.00	.35000	611.00	.5430-01	.6573-01	.7346-01	58.74	3.189	.4251	561.9	.7997-03
78	180.00	.36000	612.00	.5247-01	.6352-01	.7099-01	58.73	3.081	.4252	562.2	.7217-03
78	180.00	.37000	613.00	.5339-01	.6462-01	.7223-01	58.71	3.134	.4253	562.3	.7532-03
78	180.00	.37500	614.00	.5385-01	.6520-01	.7288-01	58.71	3.131	.4255	562.4	.7557-03
78	180.00	.38000	615.00	.5334-01	.6459-01	.7219-01	58.70	3.071	.4255	562.4	.7557-03
78	180.00	.38500	616.00	.5343-01	.6469-01	.7231-01	58.68	3.135	.4257	562.7	.7570-03
78	180.00	.39000	617.00	.5343-01	.6469-01	.7231-01	58.68	3.875	.4257	562.7	.7570-03
78	180.00	.40000	619.00	.5343-01	.6469-01	.7231-01	58.68	5.476	.4255	562.7	.7570-03
78	180.00	.40500	620.00	.5343-01	.6469-01	.7231-01	58.68	5.831	.4259	563.0	.7570-03
78	180.00	.41000	621.00	.5343-01	.6469-01	.7231-01	58.68	8.483	.4259	563.0	.7570-03
78	180.00	.41500	622.00	.5343-01	.6469-01	.7231-01	58.68	14.76	.4259	563.0	.7570-03
78	180.00	.42000	624.00	.5343-01	.6469-01	.7231-01	58.68	16.35	.4261	563.3	.7570-03
78	180.00	.42500	625.00	.5343-01	.6469-01	.7231-01	58.68	22.64	.4254	563.3	.7570-03
78	180.00	.43000	626.00	.5343-01	.6469-01	.7231-01	58.68	24.03	.4254	563.3	.7570-03
78	180.00	.43500	627.00	.5343-01	.6469-01	.7231-01	58.68	21.32	.4252	563.1	.7570-03
78	180.00	.44000	628.00	.5343-01	.6469-01	.7231-01	58.68	16.82	.4251	563.0	.7570-03
78	180.00	.44500	629.00	.5343-01	.6469-01	.7231-01	58.68	12.87	.4252	563.0	.7570-03
78	180.00	.45000	631.00	.5343-01	.6469-01	.7231-01	58.68	6.583	.4251	563.0	.7570-03
78	180.00	.45500	632.00	.5343-01	.6469-01	.7231-01	58.68	3.817	.4246	561.5	.7570-03
78	180.00	.46000	633.00	.5343-01	.6469-01	.7231-01	58.68	2.951	.4246	561.5	.7570-03
78	180.00	.46500	634.00	.5343-01	.6469-01	.7231-01	58.68	3.460	.4231	559.2	.1914-02
78	180.00	.47000	635.00	.5343-01	.6469-01	.7231-01	58.68	5.103	.4246	561.5	.1200-02
78	180.00	.47500	636.00	.5343-01	.6469-01	.7231-01	58.68	5.144	.4246	561.5	.1200-02
78	180.00	.48000	637.00	.5343-01	.6469-01	.7231-01	58.68	4.328	.4246	561.5	.1200-02
78	180.00	.48500	638.00	.5343-01	.6469-01	.7231-01	58.68	3.958	.4246	561.5	.1200-02
78	180.00	.49000	639.00	.5343-01	.6469-01	.7231-01	58.68	2.980	.4246	561.5	.1200-02
78	180.00	.49500	640.00	.5343-01	.6469-01	.7231-01	58.68	3.422	.4246	561.5	.1200-02
78	180.00	.50000	641.00	.5343-01	.6469-01	.7231-01	58.68	3.331	.4253	561.7	.1200-02
78	180.00	.50500	642.00	.5343-01	.6469-01	.7231-01	58.68	3.192	.4253	561.7	.1200-02
78	180.00	.51000	643.00	.5343-01	.6469-01	.7231-01	58.68	6.468	.4255	562.4	.1200-02
78	180.00	.51500	644.00	.5343-01	.6469-01	.7231-01	58.68	11.74	.4249	561.6	.1200-02
78	180.00	.52000	645.00	.5343-01	.6469-01	.7231-01	58.68	12.23	.4233	559.3	.3034-02
78	180.00	.52500	646.00	.5343-01	.6469-01	.7231-01	58.68	12.55	.4234	559.7	.3135-02

DATE 05 MAR 76

AVES 3.5-211 1M48

EXT TANK

ARC3.5-211(1M48)07 /NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	QDOT BTU/ FT2SEC	180/HT	TM DEG. R	STN NO R=0.9
78	180.00	.95000	649.00	.4920-01	.5957-01	.5658-01	58.74	2.890	.4251	551.9	-727-03
78	191.25	.35000	650.00	.5010-01	.6064-01	.6776-01	58.79	2.946	.4246	551.2	-737-03
78	191.25	.35000	651.00	.5063-01	.6127-01	.6847-01	58.82	2.978	.4243	550.8	-745-03
78	191.25	.37000	652.00	.4985-01	.6033-01	.6741-01	58.85	2.934	.4240	550.4	-750-03
78	191.25	.37500	653.00	.5655-01	.6842-01	.7645-01	58.87	3.329	.4238	550.2	-835-03
78	191.25	.38000	654.00	.5768-01	.6978-01	.7795-01	58.93	3.399	.4233	559.5	-8490-03
78	191.25	.38500	655.00	.7655-01	.9274-01	.1036	58.92	4.517	.4234	559.6	-1128-02
78	191.25	.39000	656.00	.9384-01	.1135	.1269	58.89	5.527	.4237	559.0	-1381-02
78	191.25	.39500	657.00	.8920-01	.1079	.1206	58.90	5.254	.4236	559.9	-1313-02
78	191.25	.40000	658.00	.7783-01	.9417-01	.1052	58.87	4.582	.4238	550.2	-1145-02
78	191.25	.40500	659.00	.7714-01	.9334-01	.1043	58.89	4.543	.4236	550.0	-1136-02
78	191.25	.41000	661.00	.9481-01	.1147	.1282	58.90	5.594	.4235	559.8	-1396-02
78	191.25	.42000	662.00	.1548	.1873	.2093	58.90	9.121	.4236	559.9	-2219-02
78	191.25	.42500	663.00	.1957	.2368	.2646	58.91	11.53	.4234	559.7	-2381-02
78	191.25	.43000	664.00	.3104	.3755	.4194	58.95	18.30	.4231	559.2	-4538-02
78	191.25	.44000	665.00	.3397	.4109	.4590	58.97	20.03	.4229	559.0	-5030-02
78	191.25	.45000	666.00	.1514	.1831	.2046	58.96	8.926	.4230	559.1	-2222-02
78	191.25	.45500	667.00	.1918	.2321	.2593	58.93	11.30	.4233	559.5	-2324-02
78	191.25	.46000	668.00	.1432	.1732	.1934	58.97	8.443	.4229	559.0	-2107-02
78	191.25	.47000	669.00	.1232	.1491	.1665	58.95	7.267	.4230	559.1	-1914-02
78	191.25	.48000	670.00	.1254	.1517	.1694	58.98	7.336	.4228	559.9	-1845-02
78	191.25	.49000	671.00	.1121	.1356	.1515	58.98	7.559	.4225	557.5	-1850-02
78	191.25	.50000	672.00	.1279	.1547	.1727	59.03	7.559	.4218	557.5	-1850-02
78	191.25	.60000	673.00	.7757-01	.9381-01	.1048	59.04	4.579	.4223	558.2	-1141-02
78	191.25	.70000	674.00	.1125	.1360	.1519	59.07	6.645	.4220	557.8	-1850-02
79	191.25	.85000	676.00	.5950-01	.7045-01	.7847-01	60.24	3.524	.4106	542.4	-6515-03
79	191.25	.85000	677.00	.5570-01	.6713-01	.7474-01	60.17	3.351	.4112	543.2	-6165-03
79	191.25	.88000	678.00	.7899-01	.9516-01	.1060	60.15	4.751	.4114	544.4	-1138-02
79	191.25	.89000	679.00	.1038	.1250	.1393	60.07	6.234	.4121	543.5	-1132-02
79	191.25	.89000	680.00	.1294	.1559	.1737	60.14	7.784	.4115	543.5	-1856-02
79	191.25	.90000	691.00	.1323	.1593	.1774	60.25	7.970	.4104	542.2	-1339-02
79	191.25	.91000	692.00	.1041	.1253	.1395	60.44	6.293	.4085	539.8	-1555-02
79	191.25	.92000	693.00	.1363	.1643	.1831	59.97	8.173	.4131	535.7	-1939-02
79	191.25	.95000	694.00	.4951-01	.5933-01	.6690-01	59.29	2.930	.4133	554.2	-1291-03
79	197.00	.33000	695.00	.4334-01	.5953-01	.6849-01	59.39	2.833	.4166	552.9	-7213-03
79	197.00	.34000	696.00	.4762-01	.5750-01	.6415-01	59.49	2.833	.4177	552.1	-6550-03
79	197.00	.35000	697.00	.4797-01	.5784-01	.6451-01	59.58	2.855	.4168	549.6	-7037-03
79	197.00	.36000	698.00	.4675-01	.5641-01	.6291-01	59.68	2.790	.4153	549.4	-6374-03
79	197.00	.37000	699.00	.8463-01	.1020	.1137	59.92	5.071	.4135	549.3	-1242-02
79	197.00	.37000	699.00	.1215	.1464	.1632	59.94	7.281	.4133	545.0	-1132-02
79	197.00	.50000	691.00	.2669	.3212	.3576	60.38	15.11	.4092	540.5	-5949-02
79	197.00	.60000	692.00	.8465-01	.1018	.1133	60.70	5.139	.4062	539.6	-1239-02
79	197.00	.70000	693.00	.2506	.3014	.3355	60.62	15.19	.4059	537.5	-7510-02

PAGE 169

(1548F11)

DATE 05 MAR 76

A/E'S 3.5-211 1MM8

PAGE 170  
18M8F11)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	EXT TASK QDOT BTU/ FT2SEC	W/MT	TH DEG. R	STN NO R=0.9
79	197.00	.80000	694.00	.5865-01	.7062-01	.7863-01	60.35	3.541	.4094	540.8	.8556-03
79	197.00	.87000	695.00	.8741-01	.1053	.1172	60.27	5.288	.4102	541.9	.1291-02
79	197.00	.92600	696.00	.1437	.1731	.1929	60.03	8.624	.4125	545.0	.2107-02
79	209.80	.15000-01	697.00	.1447	.1751	.1957	59.60	8.503	.4242	550.4	.2131-02
79	209.80	.30000-01	698.00	.4968	.5999	.6694	59.43	29.53	.4182	552.4	.2299-02
79	209.80	.50000-01	699.00	.5613	.6777	.7562	59.44	73.35	.4181	552.3	.2445-02
79	209.80	.70000-01	700.00	.5078	.6131	.6840	59.48	30.20	.4177	551.8	.2459-02
79	209.80	.10000-00	701.00	.4165	.5027	.5608	59.54	24.80	.4172	551.1	.2517-02
79	209.80	.15000	702.00	.1936	.2335	.2606	59.60	11.54	.4165	550.3	.2545-02
79	209.80	.20000	703.00	.8322-01	.1079	.1203	59.35	5.255	.4190	553.4	.1211-02
79	209.80	.30000	704.00	.3546-01	.4286-01	.4785-01	59.18	2.999	.4205	555.5	.2214-02
79	209.80	.40000	705.00	.4164-01	.5027-01	.5608-01	59.52	2.479	.4173	551.3	.2116-02
79	209.80	.50000	706.00	.1028	.1240	.1382	59.83	6.159	.4139	546.6	.1809-02
79	209.80	.60000	708.00	.4834-01	.5814-01	.6469-01	60.64	2.931	.4057	537.3	.2007-02
79	209.80	.70000	709.00	.5327-01	.6408-01	.7131-01	60.61	3.229	.4070	537.7	.2007-02
79	209.80	.80000	710.00	.1937-01	.2282-01	.2552-01	60.39	1.150	.4091	540.5	.2290-02
79	209.80	.90000	711.00	.2435-01	.3004-01	.3345-01	60.42	1.508	.4088	540.1	.2307-02
79	209.80	.95000	712.00	.9778-01	.1178	.1313	60.09	5.876	.4119	544.1	.2307-02
79	209.80	.99000-01	713.00	.1454	.1761	.1968	59.71	8.539	.4119	544.1	.2307-02
79	209.80	.99000-01	714.00	.4245	.5126	.5719	59.46	25.124	.4251	551.5	.2307-02
79	209.80	.99000-01	715.00	.4578	.5551	.6307	59.33	27.76	.4182	552.1	.2307-02
79	209.80	.99000-01	716.00	.6384	.7706	.8997	59.52	38.00	.4191	553.1	.2307-02
79	209.80	.99000-01	717.00	.2504	.3022	.3371	59.61	14.93	.4173	551.2	.2307-02
79	209.80	.99000-01	718.00	.2723	.3235	.3665	59.59	16.23	.4165	550.2	.2307-02
79	209.80	.99000	719.00	.1071	.1294	.1444	59.40	6.364	.4167	550.4	.2307-02
79	209.80	.99000	720.00	.5537-01	.6691-01	.7469-01	59.22	3.273	.4185	552.8	.2307-02
79	209.80	.99000	721.00	.2808-01	.3391-01	.3783-01	59.50	1.671	.4202	555.1	.2307-02
79	209.80	.99000	722.00	.4282-01	.5164-01	.5759-01	59.78	3.100	.4175	551.6	.2307-02
79	209.80	.99000	723.00	.9184-01	.1107	.1233	60.09	2.100	.4149	546.1	.2307-02
79	209.80	.99000	724.00	.3582-01	.4311-01	.4799-01	60.44	2.100	.4120	544.2	.2307-02
79	209.80	.99000	725.00	.5035-01	.6060-01	.6747-01	60.40	3.100	.4285	559.1	.2307-02
79	209.80	.99000	726.00	.2095-01	.2523-01	.2811-01	60.21	1.121	.4090	540.3	.2307-02
79	209.80	.99000	727.00	.2733-01	.3362-01	.3743-01	60.41	1.121	.4189	547.7	.2307-02
79	209.80	.99000	728.00	.6749-01	.8133-01	.9062-01	60.05	1.121	.4083	540.3	.2307-02
79	209.80	.99000	729.00	.6749-01	.8133-01	.9062-01	60.05	1.121	.4124	544.1	.2307-02

AVES 3.5-211 1H48

DATE 05 MAR 76

ARC3.5-211(1H48)OT /NIPPLE/P/TRIP

EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = 5.000 BETA = -5.000 RN/L = 5.000

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
83	5.000	-5.000	5.300	4.839	406.0	1329.	325.0	5347	204.7	.2192-03	3717.	.1750-01
84	5.000	-5.000	5.300	5.196	406.0	1271.	310.0	5363	195.3	.2305-03	3638.	.1750-01
85	5.000	-5.000	5.300	5.053	405.8	1293.	315.7	5354	198.8	.2260-03	3663.	.1750-01
86	5.000	-5.000	5.300	4.993	405.8	1303.	318.3	5351	200.4	.2241-03	3678.	.1750-01
87	5.000	-5.000	5.300	4.805	406.7	1336.	326.9	5354	205.8	.2182-03	3727.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F <sup>2</sup> SEC	QDOT BTU/ F <sup>2</sup> SEC	H4/H1	TH DEG. R	STN NO R=0.9
85	.00000	.30000-02	730.00	.3880	.4702	.5260	58.71	22.78	.4282	568.0	.5723-02
85	.00000	.10000-01	731.00	.9881-01	.1196	.1337	59.05	5.835	.4250	563.8	.1456-02
86	.00000	.15000-01	732.00	.6532-01	.7899-01	.8822-01	59.34	3.876	.4223	560.2	.9617-03
86	.00000	.25000-01	734.00	.4921	.5942	.6829	59.82	29.44	.4178	554.2	.7236-02
86	.00000	.30000-01	735.00	.7268	.8774	.9787	59.87	43.51	.4173	553.5	.1068-01
86	.00000	.40000-01	737.00	.6292	.7601	.8483	59.66	37.54	.4193	556.2	.9255-02
86	.00000	.45000-01	738.00	.5731	.6925	.7730	59.57	34.14	.4201	557.2	.8432-02
86	.00000	.50000-01	739.00	.5099	.6164	.6863	59.44	30.31	.4214	558.9	.7042-02
86	.00000	.60000-01	740.00	.4785	.5784	.6458	59.49	28.46	.4209	558.3	.7294-02
86	.00000	.70000-01	741.00	.4957	.5991	.6688	59.53	29.51	.4205	557.8	.4537-02
86	.00000	.80000-01	742.00	.3083	.3726	.4159	59.56	18.37	.4202	557.5	.3398-02
85	.00000	.10000-00	743.00	.2309	.2791	.3115	59.55	13.75	.4204	557.1	.2804-02
86	.00000	.15000	744.00	.1906	.2303	.2570	59.58	11.35	.4201	557.7	.1818-02
86	.00000	.17500	745.00	.1236	.1493	.1667	59.54	7.358	.4204	558.7	.1383-02
86	.00000	.20000	746.00	.9394-01	.1136	.1268	59.46	5.586	.4212	559.8	.1157-02
86	.00000	.21500	747.00	.7859-01	.9504-01	.1061	59.37	4.666	.4220	560.1	.9798-03
85	.00000	.23000	748.00	.6655-01	.8048-01	.6989-01	59.35	3.950	.4223	560.7	.9522-03
86	.00000	.24500	749.00	.6470-01	.7821-01	.6733-01	59.46	3.847	.4212	558.2	.7434-03
86	.00000	.25000	750.00	.5056-01	.6104-01	.5985	59.85	3.026	.4175	553.8	.8492-03
86	.00000	.30000	751.00	.5770-01	.6974-01	.7787-01	59.50	3.433	.4209	559.7	.8086-03
85	.00000	.35000	752.00	.5314-01	.6675-01	.7461-01	58.53	3.227	.4253	559.8	.7909-03
85	.00000	.40000	753.00	.5393-01	.6529-01	.7298-01	58.52	3.156	.4254	561.2	.8176-03
85	.00000	.50000	754.00	.5573-01	.6740-01	.7547-01	58.41	3.255	.4265		

ORIGINAL PAGE IS  
OF POOR QUALITY

AVES 3.5-211 1448

DATE 03 MAR 75

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	EXT TANK OOT BTU/ F12SEC	HM/HIT	TM DEO. N	STN NO R=0.9
85	.00000	.60000	755.00	.5326-01	.6459-01	.7227-01	58.07	3.093	.4297	565.4	.7822-03
85	.00000	.70000	756.00	.5342-01	.6478-01	.7249-01	58.06	3.102	.4298	565.5	.7845-03
85	.00700	.80000	757.00	.5092-01	.6179-01	.6917-01	57.88	2.947	.4315	567.8	.7482-03
85	.00000	.90000	758.00	.4980-01	.6034-01	.6747-01	58.33	2.905	.4273	562.0	.7308-03
85	.55.000	.22000	759.00	.7979-01	.9657-01	.1081	58.34	4.656	.4271	562.0	.1171-02
85	.55.000	.25000	760.00	.5812-01	.7028-01	.7848-01	58.91	3.424	.4217	554.9	.8514-03
85	.55.000	.27000	761.00	.8103-01	.9793-01	.1093	59.03	4.783	.4206	553.5	.1187-02
85	.55.000	.30000	762.00	.7037-01	.8520-01	.9523-01	58.53	4.119	.4254	559.7	.1032-02
85	.55.000	.32000	763.00	.7052-01	.8543-01	.9552-01	58.38	4.117	.4268	561.6	.1035-02
85	.55.000	.34000	764.00	.6822-01	.8265-01	.9243-01	58.34	3.980	.4272	562.1	.1001-02
85	.55.000	.36000	765.00	.6768-01	.8199-01	.9169-01	58.33	3.948	.4270	562.1	.9931-03
85	.55.000	.38000	766.00	.6711-01	.8130-01	.9091-01	58.35	3.916	.4270	561.9	.9847-03
85	.55.000	.40000	767.00	.6511-01	.7888-01	.8822-01	58.31	3.797	.4274	562.4	.9554-03
85	.55.000	.42000	768.00	.7457-01	.9034-01	.1010	58.36	4.352	.4270	561.8	.1094-02
85	.57.500	.23000	769.00	.5491-01	.6640-01	.7416-01	58.88	3.233	.4220	555.3	.8044-03
85	.57.500	.25000	770.00	.8114-01	.9808-01	.1095	58.97	4.785	.4212	554.2	.1188-02
85	.57.500	.27000	771.00	.6365-01	.7698-01	.8597-01	58.86	3.747	.4222	555.6	.9326-03
85	.57.500	.29000	772.00	.6367-01	.7712-01	.8622-01	58.42	3.752	.4252	559.5	.9397-03
85	.57.500	.31000	773.00	.6231-01	.7549-01	.8441-01	58.36	3.719	.4264	561.1	.9341-03
85	.57.500	.33000	774.00	.6207-01	.7519-01	.8407-01	58.38	3.624	.4268	561.8	.9147-03
85	.57.500	.35000	775.00	.6191-01	.7500-01	.8386-01	58.37	3.614	.4269	561.7	.9084-03
85	.57.500	.37000	776.00	.6261-01	.7524-01	.8413-01	58.39	3.656	.4267	561.5	.9186-03
85	.57.500	.39000	777.00	.6143-01	.7441-01	.8320-01	58.40	3.587	.4267	561.4	.9013-03
85	.57.500	.41000	778.00	.6006-01	.7344-01	.8131-01	58.41	3.510	.4266	561.3	.8809-03
85	.57.500	.43000	779.00	.6144-01	.7441-01	.8320-01	58.44	3.588	.4265	561.3	.9013-03
85	.57.500	.45000	780.00	.6030-01	.7304-01	.8166-01	58.43	3.523	.4263	561.0	.8847-03
85	.57.500	.47000	781.00	.5609-01	.6793-01	.7595-01	58.43	3.277	.4263	561.0	.8229-03
85	.57.500	.49000	782.00	.5920-01	.7170-01	.8016-01	58.43	3.459	.4263	560.9	.8685-03
85	.57.500	.51000	783.00	.5966-01	.7225-01	.8078-01	58.43	3.486	.4263	560.9	.8751-03
85	.57.500	.53000	784.00	.6084-01	.7369-01	.8240-01	58.39	3.553	.4267	561.4	.8926-03
85	.57.500	.55000	785.00	.6048-01	.7327-01	.8193-01	58.35	3.530	.4270	561.9	.8875-03
85	.57.500	.57000	786.00	.5941-01	.7212-01	.8077-01	58.28	3.525	.4278	562.9	.8878-03
85	.57.500	.59000	787.00	.6109-01	.7413-01	.8299-01	57.88	3.432	.4326	569.3	.8733-03
85	.57.500	.61000	788.00	.6353-01	.7713-01	.8638-01	57.74	3.536	.4316	567.9	.8977-03
85	.57.500	.63000	789.00	.6368-01	.7715-01	.8627-01	58.35	3.668	.4329	569.6	.9339-03
85	.57.500	.65000	790.00	.7550-01	.9123-01	.1019	59.06	3.716	.4271	562.0	.9344-03
85	.57.500	.67000	791.00	.7550-01	.9123-01	.1019	59.06	4.459	.4203	553.1	.1105-02
85	.57.500	.69000	792.00	.5921-01	.7159-01	.7995-01	58.92	3.489	.4217	554.8	.8674-03
85	.57.500	.71000	793.00	.6167-01	.7464-01	.8341-01	58.63	3.616	.4244	558.4	.9041-03
85	.57.500	.73000	794.00	.6120-01	.7409-01	.8281-01	58.54	3.582	.4253	559.6	.8974-03
85	.57.500	.75000	795.00								
85	.57.500	.77000	796.00								
85	.57.500	.79000	797.00								

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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO- R=0.9
85	78.000	32000	798.00	.6177-01	.7479-01	.8360-01	58.50	3.613	.4256	560.1	.9059-03
85	78.000	32500	799.00	.5991-01	.7254-01	.8109-01	58.50	3.505	.4256	560.0	.8767-03
85	78.000	33000	800.00	.6048-01	.7323-01	.8185-01	58.51	3.539	.4255	559.9	.8870-03
85	78.000	33500	801.00	.6079-01	.7360-01	.8228-01	58.50	3.556	.4257	560.1	.8916-03
85	78.000	34000	802.00	.5940-01	.7192-01	.8039-01	58.53	3.477	.4253	559.6	.8712-03
85	78.000	34500	803.00	.5983-01	.7243-01	.8095-01	58.54	3.503	.4252	559.5	.8773-03
85	78.000	35000	804.00	.5975-01	.7233-01	.8085-01	58.53	3.497	.4254	559.7	.8762-03
85	78.000	35500	805.00	.5950-01	.7202-01	.8048-01	58.60	3.486	.4247	558.9	.8724-03
85	78.000	36000	806.00	.5917-01	.7163-01	.8005-01	58.58	3.466	.4249	559.1	.8677-03
85	78.000	36500	807.00	.5830-01	.7058-01	.7888-01	58.58	3.415	.4249	559.1	.8549-03
85	78.000	37000	808.00	.6014-01	.7280-01	.8136-01	58.58	3.523	.4249	559.1	.8818-03
85	78.000	37500	809.00	.6038-01	.7309-01	.8169-01	58.55	3.535	.4252	559.5	.8854-03
85	78.000	38000	810.00	.6091-01	.7373-01	.8241-01	58.56	3.567	.4251	559.3	.8931-03
85	78.000	38500	811.00	.5970-01	.7228-01	.8078-01	58.58	3.496	.4251	559.4	.8755-03
85	78.000	39000	812.00	.5715-01	.6919-01	.7734-01	58.52	3.344	.4254	559.8	.8381-03
85	78.000	40000	815.00	.4586	.5503	.6115	63.09	28.93	.4002	542.1	.6793-02
83	90.000	50000-01	985.00	.4693	.5636	.6265	62.87	29.51	.4022	544.8	.6957-02
83	90.000	60000-01	986.00	.4359	.5236	.5821	62.81	27.38	.4028	545.6	.6463-02
83	90.000	70000-01	987.00	.4264	.5122	.5698	62.75	26.76	.4036	546.3	.6323-02
83	90.000	80000-01	988.00	.5477	.6580	.7317	62.72	34.35	.4035	546.7	.8121-02
83	90.000	100000-01	989.00	.3223	.3872	.4306	62.73	20.22	.4035	546.6	.4779-02
83	90.000	15000	990.00	.1772	.2130	.2369	62.58	11.09	.4049	548.4	.2629-02
85	90.000	20100	991.00	.6455-01	.7815-01	.8735-01	58.54	3.779	.4252	559.5	.9466-03
85	90.000	24000	813.00	.5669-01	.6860-01	.7685-01	58.67	3.326	.4240	558.0	.8310-03
85	90.000	25000	814.00	.4800-01	.5801-01	.6477-01	59.05	2.835	.4204	553.2	.7029-03
85	90.000	27000	815.00	.6897-01	.8333-01	.9300-01	59.15	4.080	.4194	551.9	.1010-02
85	90.000	29000	816.00	.5828-01	.7046-01	.7869-01	58.92	3.434	.4216	554.8	.8537-03
85	90.000	30000	817.00	.6471-01	.7832-01	.8752-01	58.61	3.792	.4246	558.7	.9487-03
85	90.000	31000	818.00	.5863-01	.7097-01	.7932-01	58.58	3.435	.4249	559.1	.8597-03
85	90.000	32000	819.00	.5713-01	.6916-01	.7730-01	58.55	3.345	.4252	559.5	.8377-03
85	90.000	32500	820.00	.6015-01	.7281-01	.8138-01	58.55	3.522	.4251	559.4	.8820-03
85	90.000	33000	821.00	.5733-01	.6941-01	.7758-01	58.54	3.356	.4253	559.6	.8408-03
85	90.000	33500	822.00	.5814-01	.7038-01	.7867-01	58.54	3.404	.4252	559.5	.8526-03
85	90.000	34000	823.00	.5953-01	.7206-01	.8055-01	58.55	3.485	.4253	559.6	.8729-03
85	90.000	34500	824.00	.8474-01	.1026	.1147	58.56	4.962	.4251	559.4	.1243-02
85	90.000	35000	825.00	.1596	.1931	.2159	58.58	9.346	.4249	559.1	.2340-02
85	90.000	35500	826.00	.8819-01	.1069	.1195	57.17	5.011	.4280	553.0	.1280-02
84	90.000	36000	828.00	.6816-01	.8259-01	.9237-01	57.20	3.899	.4277	552.6	.9690-03
84	90.000	36500	829.00	.6295-01	.7628-01	.8531-01	57.20	3.601	.4276	552.6	.9134-03
84	90.000	37000	830.00	.6951-01	.7327-01	.8194-01	57.21	3.459	.4275	552.5	.8773-03
84	90.000	37500	831.00	.6047-01	.7118-01	.7960-01	57.21	3.361	.4275	552.5	.8523-03
84	90.000	38000	832.00	.5874-01	.7118-01	.7960-01	57.21	3.361	.4275	552.5	.8523-03
84	90.000	38500	833.00	.5330-01	.6459-01	.7223-01	57.19	3.048	.4278	552.8	.7734-03
84	90.000	39000	834.00	.4886-01	.5921-01	.6622-01	57.18	2.794	.4279	552.9	.7090-03

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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	EXT TANK QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
84	90.000	50000	835.00	.5454-01	.6610-01	.7393-01	57.17	3.118	.4280	553.0	.7915-03
84	90.000	60000	836.00	.4991-01	.6059-01	.6784-01	56.70	2.830	.4325	558.9	.7253-03
84	90.000	70000	837.00	.5948-01	.7217-01	.8079-01	56.83	3.380	.4313	557.3	.8640-03
84	90.000	80000	838.00	.4674-01	.5675-01	.5356-01	56.61	2.646	.4334	560.0	.6794-03
84	90.000	90000	839.00	.4359-01	.5282-01	.5908-01	57.17	2.492	.4279	553.0	.6325-03
84	112.50	23000	840.00	.4697-01	.5690-01	.5363-01	57.25	2.689	.4272	552.0	.6814-03
84	112.50	25000	841.00	.3875-01	.4687-01	.5235-01	57.72	2.237	.4226	546.1	.5614-03
84	112.50	30000	843.00	.4865-01	.5892-01	.6587-01	57.37	2.791	.4260	550.5	.7056-03
84	112.50	33000	844.00	.4735-01	.5737-01	.6416-01	57.23	2.710	.4273	552.2	.6870-03
84	112.50	35000	845.00	.4518-01	.5475-01	.6122-01	57.22	2.585	.4275	552.4	.6556-03
84	112.50	37000	846.00	.4441-01	.5381-01	.6017-01	57.24	2.542	.4272	552.1	.6443-03
84	112.50	40000	847.00	.4105-01	.4973-01	.5561-01	57.26	2.350	.4271	551.9	.5956-03
84	112.50	45000	848.00	.4049-01	.4973-01	.5488-01	57.20	2.316	.4277	552.6	.5876-03
84	112.50	50000	849.00	.4866-01	.5894-01	.6591-01	57.29	2.788	.4268	551.5	.7059-03
84	112.50	55000	850.00	.5417-01	.6559-01	.7332-01	57.40	3.109	.4257	550.1	.7856-03
84	112.50	60000	851.00	.4188-01	.5081-01	.5687-01	56.84	2.380	.4312	557.2	.6083-03
84	112.50	65000	852.00	.4223-01	.5125-01	.5738-01	56.76	2.397	.4320	558.2	.6135-03
84	112.50	70000	853.00	.4534-01	.5500-01	.6155-01	56.93	2.582	.4303	556.0	.6585-03
84	112.50	75000	854.00	.5493-01	.6654-01	.7441-01	57.25	3.145	.4325	552.0	.7969-03
84	112.50	80000	855.00	.4915-01	.5654-01	.6683-01	56.70	2.787	.4325	553.9	.7144-03
84	112.50	90000	856.00	.6755-01	.8191-01	.9164-01	57.03	3.852	.4294	554.8	.9807-03
84	125.40	84000	857.00	.5817-01	.1191	.1333	56.87	5.583	.4309	556.8	.1426-02
84	125.40	85000	858.00	.9085-01	.1102	.1234	56.83	5.163	.4313	557.3	.1320-02
84	125.40	86000	859.00	.7029-01	.8531-01	.9552-01	56.74	3.988	.4321	558.4	.1021-02
84	125.40	87000	860.00	.4803-01	.5837-01	.6536-01	56.68	2.725	.4327	559.1	.6988-03
84	125.40	881.00	861.00	.3712-01	.4506-01	.5047-01	56.66	2.103	.4329	559.4	.5395-03
84	125.40	892.00	862.00	.4307-01	.5229-01	.5856-01	56.69	2.442	.4326	559.0	.6260-03
84	125.40	903.00	863.00	.4112-01	.4995-01	.5591-01	56.87	2.342	.4309	556.8	.5981-03
84	125.40	914.00	864.00	.3691-01	.4495-01	.5044-01	55.85	2.061	.4408	559.2	.5378-03
84	125.40	925.00	865.00	.8718-01	.1058	.1185	56.67	4.941	.4328	559.7	.1267-02
84	125.40	936.00	866.00	.7875-01	.9556-01	.1070	56.80	4.473	.4316	557.7	.1144-02
84	125.40	947.00	867.00	.7116-01	.8636-01	.9669-01	56.77	4.040	.4319	558.1	.1034-02
84	125.40	958.00	868.00	.6897-01	.8368-01	.9367-01	56.84	3.920	.4312	557.2	.1002-02
84	125.40	969.00	869.00	.9165-01	.1112	.1244	56.88	5.213	.4309	556.6	.1331-02
84	125.40	980.00	870.00	.4951	.5986	.6684	57.82	28.62	.4217	544.9	.7170-02
84	125.40	991.00	871.00	.4331	.5313	.5937	57.61	28.30	.4237	547.5	.6364-02
84	125.40	1002.00	872.00	.3831	.4636	.5181	57.55	22.05	.4243	548.3	.5553-02
84	125.40	1013.00	873.00	.3679	.4453	.4976	57.54	21.17	.4244	548.4	.5333-02
84	125.40	1024.00	874.00	.3936	.4763	.5322	57.57	22.66	.4241	548.0	.5704-02
84	125.40	1035.00	875.00	.2349	.2842	.3176	57.61	13.53	.4237	547.5	.3404-02
84	125.40	1046.00	876.00	.1231	.1490	.1665	57.58	7.089	.4240	547.9	.1784-02
84	125.40	1057.00	877.00	.6257-01	.7574-01	.8466-01	57.46	3.595	.4252	549.4	.9072-03
84	125.40	1068.00	878.00	.3662-01	.4434-01	.4957-01	57.37	2.101	.4260	550.5	.5311-03



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ARC3.5-211(1H48)OT /NIPPLE/P/TRIP

EXT TANK

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(RNB12)

RUN NUMBER	FHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/W/HT	TM DEG. R	STN NO R=0.9
84	135.00	40000	879.00	.3363-01	.4072-01	.4553-01	57.37	1.929	.4261	559.6	.4877-03
84	135.00	.50000	880.00	.4627-01	.5601-01	.6259-01	57.50	2.661	.4247	548.8	.6708-03
84	135.00	.55000	881.00	.7626-01	.9226-01	.1031	57.64	4.396	.4234	547.1	.1105-02
84	135.00	.60000	882.00	.7460-01	.9041-01	.1011	57.15	4.263	.4282	553.3	.1083-02
84	135.00	.65000	883.00	.1005	.1219	.1363	57.05	5.734	.4231	554.5	.1459-02
84	135.00	.70000	884.00	.7904-01	.9577-01	.1071	57.20	4.521	.4276	552.6	.1147-02
84	135.00	.75000	885.00	.1072	.1298	.1451	57.34	6.146	.4263	550.9	.1554-02
84	135.00	.80000	886.00	.8595-01	.1043	.1167	56.87	4.888	.4308	556.7	.1248-02
84	135.00	.84000	887.00	.1995	.2419	.2708	56.92	11.35	.4304	556.1	.2897-02
84	135.00	.85000	888.00	.2394	.2904	.3650	56.90	13.62	.4306	556.4	.3476-02
84	135.00	.85000	889.00	.1279	.1552	.1737	56.81	7.265	.4314	557.5	.1858-02
84	135.00	.87000	890.00	.1100	.1335	.1494	56.75	6.240	.4321	558.3	.1598-02
84	135.00	.88000	891.00	.7240-01	.8791-01	.9844-01	56.66	4.103	.4329	559.4	.1052-02
84	135.00	.89000	892.00	.7592-01	.9217-01	.1032	56.70	4.305	.4326	559.0	.1103-02
84	135.00	.90000	893.00	.9349-01	.1134	.1270	56.86	5.316	.4309	556.9	.1358-02
84	135.00	.91000	894.00	.1272	.1542	.1725	57.09	7.263	.4287	554.9	.1847-02
84	135.00	.92600	895.00	.1502	.1824	.2042	56.67	8.512	.4328	559.3	.2183-02
84	135.00	.95000	896.00	.3749-01	.4557-01	.5108-01	56.34	2.112	.4360	563.4	.5455-03
84	142.30	.42000	897.00	.7342-01	.8257-01	.8877-01	57.39	2.492	.4258	550.2	.6296-03
84	142.30	.43500	898.00	.7327-01	.8872-01	.9316-01	57.47	4.212	.4251	549.3	.1063-02
84	142.30	.45000	899.00	.5466-01	.6617-01	.7396-01	57.47	3.141	.4251	549.2	.7925-03
84	142.30	.50000	900.00	.6901-01	.8351-01	.9332-01	57.56	3.972	.4241	548.1	.1000-02
84	142.30	.60000	901.00	.7092-01	.8591-01	.9506-01	57.28	4.062	.4269	551.6	.1029-02
84	142.30	.70000	902.00	.1136	.1376	.1538	57.34	6.513	.4263	550.9	.1648-02
83	154.98	.93500	913.00	.4576	.5514	.6143	61.79	28.28	.4121	558.3	.6802-02
83	157.50	.94500	914.00	.3724	.4482	.4990	62.14	23.14	.4089	554.0	.5530-02
83	157.50	.90000-01	918.00	.3117	.3744	.4163	62.82	19.58	.4027	545.5	.4621-02
83	157.50	.90000-01	919.00	.2941	.3532	.3926	62.86	18.49	.4023	545.0	.4359-02
83	157.50	.10000-00	920.00	.2010	.2413	.2683	62.88	12.64	.4021	544.7	.2979-02
83	157.50	.20000	922.00	.4999-01	.6004-01	.6575-01	62.85	3.142	.4024	545.1	.7411-03
83	157.50	.42000	923.00	.7362-01	.8845-01	.9835-01	62.72	4.617	.4036	546.7	.1092-02
83	157.50	.85000	926.00	.8543-01	.1029	.1145	62.03	5.299	.4099	555.3	.1269-02
83	157.50	.86000	927.00	.8490-01	.1022	.1139	61.97	5.262	.4105	556.0	.1262-02
83	157.50	.87000	928.00	.8671-01	.1044	.1163	61.96	5.372	.4105	556.2	.1288-02
83	157.50	.88000	929.00	.8738-01	.1052	.1172	61.92	5.411	.4109	556.6	.1298-02
83	157.50	.89000	930.00	.9366-01	.1128	.1256	61.94	5.801	.4107	555.4	.1392-02
83	157.50	.90000	931.00	.1205	.1450	.1614	62.14	7.485	.4089	553.9	.1789-02
83	157.50	.91000	932.00	.1103	.1327	.1476	62.44	6.888	.4061	550.2	.1637-02
83	157.50	.92000	933.00	.2445	.2945	.3279	62.08	15.19	.4035	554.7	.3633-02
83	153.12	.41500	934.00	.6521-01	.7836-01	.8714-01	62.70	4.089	.4038	547.0	.9671-03
83	163.12	.42000	935.00	.6085-01	.7313-01	.8133-01	62.65	3.812	.4042	547.6	.9025-03
83	163.12	.43000	937.00	.9341-01	.1123	.1249	62.61	5.848	.4046	548.1	.1355-02
83	163.12	.44000	939.00	.1430	.1719	.1912	62.62	8.956	.4045	547.9	.2121-02

DATE 05 MAR 76

AMES 3.5-211 1148

ARC3.5-211114810T /NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	MM/HT	TM DEG. R	STN NO R=0.9
83	163.12	44500	939.00	.1654	.1988	.2210	62.68	10.37	.4039	547.2	.2453-02
83	163.12	45000	940.00	.1570	.1886	.2098	62.69	9.842	.4038	547.1	.2328-02
83	163.12	45000	941.00	.1261	.1515	.1684	62.69	7.919	.4030	545.9	.1870-02
83	163.12	60000	942.00	.1115	.1340	.1490	62.6	6.981	.4044	547.9	.1653-02
83	163.12	70000	943.00	.8855-01	.1064	.1184	62.59	5.542	.4048	548.4	.1314-02
83	163.12	80000	944.00	.7937-01	.9551-01	.1063	62.59	4.935	.4085	553.3	.1179-02
83	168.00	35000	945.00	.2637-01	.3239-01	.3601-01	62.83	1.694	.4026	545.3	.3987-03
83	169.00	35000	946.00	.2594-01	.3230-01	.3591-01	62.83	1.690	.4026	545.4	.3987-03
83	168.00	37000	947.00	.2594-01	.3068-01	.3411-01	62.81	1.604	.4028	545.6	.3785-03
83	168.00	37500	948.00	.2641-01	.3172-01	.3527-01	62.78	1.658	.4030	546.0	.3916-03
83	168.00	38500	950.00	.2467-01	.2770-01	.3079-01	62.85	1.450	.4024	545.1	.3419-03
83	169.00	39000	951.00	.2354-01	.2964-01	.3296-01	62.74	1.548	.4034	546.5	.3558-03
83	169.00	39500	952.00	.3752-01	.2829-01	.3145-01	62.72	1.477	.4034	546.4	.3491-03
83	169.00	40000	953.00	.5631-01	.4508-01	.5013-01	62.69	1.353	.4036	546.7	.5564-03
83	169.00	40500	954.00	.5188-01	.6231-01	.6928-01	62.78	1.257	.4030	547.0	.8350-03
83	169.00	41000	955.00	.5926-01	.7121-01	.7919-01	62.66	1.112	.4041	547.4	.7691-03
83	169.00	41500	956.00	.6860-01	.8243-01	.9168-01	62.65	1.091	.4042	547.5	.1017-02
83	169.00	42000	957.00	.6683-01	.8030-01	.8929-01	62.70	1.191	.4037	546.9	.9911-03
83	168.00	42500	958.00	.1775	.2133	.2373	62.62	1.229	.4045	547.9	.2633-02
83	168.00	43000	959.00	.1962	.2358	.2622	62.63	1.229	.4044	547.9	.2910-02
83	168.00	44000	960.00	.1343	.1614	.1794	62.68	8.416	.4040	547.2	.1932-02
83	169.00	44500	961.00	.1343	.1614	.1795	62.72	8.425	.4036	546.7	.1932-02
83	169.00	45000	962.00	.1539	.1849	.2056	62.72	9.652	.4035	546.6	.2334-02
83	169.00	45500	963.00	.1574	.1891	.2103	62.72	9.873	.4035	546.6	.2334-02
83	168.00	46000	964.00	.1464	.1759	.1956	62.73	9.183	.4034	546.5	.2171-02
83	168.00	46500	965.00	.1413	.1693	.1888	62.75	8.868	.4034	546.4	.2096-02
83	168.00	47000	966.00	.8103-01	.9733-01	.1082	62.79	8.088	.4029	545.8	.1201-02
83	168.00	47500	967.00	.7477-01	.8958-01	.1002	62.16	4.647	.4088	553.7	.1110-02
83	168.00	48000	968.00	.7392-01	.8899-01	.9908-01	62.11	4.591	.4092	554.3	.1098-02
83	168.00	48500	969.00	.7700-01	.9271-01	.1032	62.05	4.776	.4098	555.1	.1144-02
83	168.00	49000	970.00	.7128-01	.8581-01	.9554-01	62.08	4.425	.4094	554.7	.1059-02
83	168.00	49500	971.00	.1170	.1408	.1568	62.08	7.262	.4034	554.7	.1738-02
83	168.00	50000	972.00	.1483	.1784	.1985	62.28	9.234	.4076	552.2	.2201-02
83	168.00	50500	973.00	.1821	.2188	.2434	62.63	11.41	.4044	547.8	.2701-02
83	168.00	51000	974.00	.2262	.2721	.3028	62.32	14.10	.4072	551.6	.3357-02
83	168.00	51500	975.00	.1504	.1810	.2014	62.23	9.359	.4081	552.9	.2233-02
83	168.00	52000	976.00	.9793-01	.1176	.1308	62.76	6.146	.4032	546.3	.1452-02
83	168.00	52500	977.00	.2000-01	.2330	.2590	62.95	12.22	.4015	543.8	.2876-02
83	168.00	53000	978.00	.2500-01	.4390	.4879	63.04	23.06	.4006	542.7	.5419-02
83	168.00	53500	979.00	.3658	.4390	.4879	63.04	23.06	.4006	542.7	.5419-02
83	168.00	54000	980.00	.3500	.4210	.4685	62.78	21.97	.4059	554.3	.5209-02
83	168.00	54500	981.00	.3664	.4416	.4916	62.60	22.97	.4085	556.4	.5463-02
83	168.00	55000	982.00	.3151	.3793	.4223	62.52	19.70	.4092	557.4	.4692-02

DATE 05 MAR 76

AVES 3.5-211 1H48

ARC3.5-211(1H48)OT /NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	MM/HT	TM DEG. R	STN NO R-0.9
87	180.00	70000-01	603.00	.2795	.3364	.3746	62.51	17.47	.4093	557.5	.162-02
87	180.00	60000-01	604.00	.3520	.4237	.4718	62.55	22.02	.4090	557.1	.5242-02
87	180.00	10000-00	605.00	.1655	.1993	.2219	62.55	10.35	.4090	557.1	.2465-02
87	180.00	15000	606.00	.9232-01	.1111	.1237	62.59	5.778	.4086	556.6	.1375-02
87	180.00	20000	607.00	.4014-01	.4833-01	.5392-01	62.47	2.508	.4097	558.1	.5979-03
87	180.00	21000	608.00	.3128-01	.3766-01	.4194-01	62.61	1.313	.4084	556.4	.4659-03
87	180.00	30000	610.00	.2097-01	.2523-01	.2809-01	62.61	1.448	.4083	556.2	.3443-03
87	180.00	35000	611.00	.2312-01	.2783-01	.3098-01	62.62	1.392	.4087	556.8	.3122-03
87	180.00	37000	612.00	.2225-01	.2678-01	.2981-01	62.57	1.417	.4091	557.3	.3374-03
87	180.00	37000	613.00	.2266-01	.2727-01	.3037-01	62.53	1.386	.4092	557.5	.3320-03
87	180.00	37500	614.00	.2216-01	.2569-01	.2970-01	62.52	1.310	.4093	557.6	.3120-03
87	180.00	39000	615.00	.2095-01	.2522-01	.2808-01	62.51	1.610	.4095	557.8	.3836-03
87	180.00	39500	616.00	.2576-01	.3101-01	.3453-01	62.49	2.527	.4100	558.5	.6029-03
87	180.00	39000	617.00	.4047-01	.4873-01	.5427-01	62.42	2.969	.4101	558.7	.7064-03
87	180.00	39500	618.00	.4756-01	.5726-01	.6377-01	62.41	3.114	.4102	558.8	.7432-03
87	180.00	40000	619.00	.4989-01	.6008-01	.6691-01	62.39	3.290	.4104	559.1	.7857-03
87	180.00	40500	620.00	.5274-01	.6351-01	.7074-01	62.36	5.007	.4107	559.5	.1196-02
87	180.00	41000	621.00	.8030-01	.9672-01	.1077	62.31	7.712	.4111	560.0	.1644-02
87	180.00	41500	622.00	.1239	.1491	.1661	62.31	10.61	.4111	560.1	.2535-02
87	180.00	42500	624.00	.1702	.2051	.2284	62.32	10.72	.4111	560.0	.2562-02
87	180.00	43000	625.00	.1719	.2071	.2307	62.31	16.04	.4112	560.1	.3835-02
87	180.00	44000	626.00	.2574	.3100	.3454	62.32	19.15	.4110	559.9	.4579-02
87	180.00	44500	627.00	.3073	.3702	.4124	62.35	18.12	.4108	559.6	.4329-02
87	180.00	45000	628.00	.2906	.3500	.3898	62.37	14.74	.4106	559.3	.3520-02
87	180.00	45500	629.00	.2353	.2846	.3170	62.34	11.12	.4109	559.7	.2656-02
87	180.00	46000	630.00	.1784	.2149	.2394	62.29	5.441	.4113	560.3	.1302-02
87	180.00	47000	631.00	.8735-01	.1052	.1172	62.29	5.418	.4108	559.6	.8168-03
87	180.00	48000	632.00	.5482-01	.6603-01	.7355-01	62.35	3.226	.4103	559.9	.7702-03
87	180.00	49000	633.00	.5170-01	.6226-01	.6934-01	62.40	2.733	.4090	557.2	.6508-03
87	180.00	50000	634.00	.4370-01	.5261-01	.5857-01	62.54	5.639	.4092	556.1	.1340-02
87	180.00	50000	635.00	.9003-01	.1083	.1206	62.63	5.042	.4113	560.4	.1206-02
87	180.00	50000	636.00	.8094-01	.9750-01	.1086	62.29	3.527	.4119	561.1	.8447-03
87	180.00	50000	637.00	.5566-01	.6829-01	.7608-01	62.23	3.664	.4113	560.2	.8763-03
87	180.00	50000	638.00	.5881-01	.7084-01	.7892-01	62.30	3.791	.4098	558.2	.9041-03
87	180.00	70000	639.00	.5070-01	.7309-01	.8139-01	62.46	4.130	.4127	562.2	.9306-03
87	180.00	80000	640.00	.6645-01	.8009-01	.8925-01	62.14	4.433	.4137	563.6	.1066-02
87	180.00	80000	641.00	.7146-01	.8616-01	.9603-01	62.03	4.384	.4143	564.4	.1055-02
87	180.00	85000	642.00	.7375-01	.8532-01	.9511-01	61.97	4.438	.4145	564.7	.1004-02
87	180.00	87000	643.00	.6728-01	.8114-01	.9046-01	61.94	4.811	.4145	564.6	.1399-02
87	180.00	89000	644.00	.9382-01	.1131	.1261	62.04	12.07	.4136	563.4	.2901-02
87	180.00	89000	645.00	.1945	.2345	.2614	62.30	15.31	.4112	560.2	.3662-02
87	180.00	90000	646.00	.2458	.2960	.3298	62.25	13.60	.4117	560.8	.3256-02
87	180.00	92500	648.00	.2185	.2632	.2932					

AVES 3.5-211 1148

DATE 05 MAR 76

ARC3.5-2111148101 /NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	MM/HT	TM DEG. R	STN NO R=0.9
87	190.00	35000	649.00	5846-01	7049-01	7858-01	61.97	3.623	4142	564.3	8718-03
87	191.25	35000	650.00	2129-01	2562-01	2852-01	62.63	1.333	4082	558.0	3169-03
87	191.25	35000	651.00	2108-01	2537-01	2824-01	62.67	1.321	4076	555.6	3139-03
87	191.25	37000	652.00	1913-01	2301-01	2561-01	62.70	1.199	4074	555.2	2847-03
87	191.25	37000	653.00	3242-01	3900-01	4341-01	62.72	2.033	4071	555.0	4825-03
87	191.25	39000	654.00	4302-01	5174-01	5758-01	62.76	2.700	4073	554.5	6402-03
87	191.25	39500	655.00	4506-01	5421-01	6033-01	62.73	2.827	4077	554.9	6707-03
87	191.25	39500	656.00	3999-01	4812-01	5356-01	62.69	2.507	4075	555.4	5953-03
87	191.25	39500	657.00	3837-01	4616-01	5138-01	62.71	2.406	4081	555.1	5711-03
87	191.25	40000	658.00	3915-01	4710-01	5243-01	62.64	2.452	4079	555.9	5828-03
87	191.25	40500	659.00	4508-01	5425-01	6039-01	62.66	2.825	4082	555.7	6711-03
87	191.25	41500	661.00	6724-01	8091-01	9007-01	62.64	4.212	4085	556.0	1001-02
87	191.25	42000	662.00	1013	1219	1357	62.60	6.342	4083	556.4	1508-02
87	191.25	42500	663.00	1197	1441	1604	62.62	7.498	4082	556.3	1783-02
87	191.25	43000	664.00	1942	2337	2601	62.64	12.16	4079	556.0	2891-02
87	191.25	44000	665.00	2250	2707	3013	62.66	14.10	4081	555.7	3349-02
87	191.25	45000	666.00	1047	1259	1402	62.65	6.557	4079	555.9	1558-02
87	191.25	45500	667.00	1434	1726	1921	62.62	8.983	4081	556.2	2135-02
87	191.25	46000	668.00	8979-01	1080	1203	62.66	5.627	4079	555.7	1337-02
87	191.25	47000	669.00	7571-01	9110-01	1014	62.65	4.743	4081	555.9	1127-02
87	191.25	48000	670.00	7314-01	8800-01	9794-01	62.69	4.585	4075	555.4	1269-02
87	191.25	49000	671.00	6095-01	7332-01	8.60-01	62.71	3.822	4065	555.1	2012-03
87	191.25	50000	672.00	7203-01	9505-01	1058	62.80	4.963	4081	554.0	1176-02
87	191.25	51000	673.00	7290-01	8992-01	9899-01	62.64	4.628	4082	556.1	1103-02
87	191.25	52000	674.00	7732-01	9304-01	1036	62.63	4.843	4081	555.9	1151-02
87	191.25	53000	675.00	6490-01	7836-01	8751-01	59.37	3.847	4226	555.3	9541-03
87	191.25	54000	676.00	7344-01	8862-01	9921-01	59.32	4.356	4225	560.5	1081-02
87	191.25	55000	677.00	7324-01	9584-01	1070	59.32	4.701	4228	560.4	1157-02
87	191.25	56000	678.00	1122	1357	1515	59.29	6.651	4217	560.8	1222-02
87	191.25	57000	679.00	1615	1953	2181	59.41	9.595	4201	559.3	2318-02
87	191.25	58000	680.00	1735	2097	2341	59.58	10.34	4179	557.2	2553-02
87	191.25	59000	681.00	1539	1858	2073	59.82	9.205	4207	554.2	2263-02
87	191.25	60000	682.00	1245	1505	1681	59.52	7.413	4207	557.9	1833-02
87	191.25	61000	683.00	5306-01	6417-01	7169-01	59.29	3.146	4228	560.8	813-03
87	191.25	62000	684.00	1981-01	2273-01	2537-01	59.60	1.121	4199	556.9	2767-03
87	191.25	63000	685.00	1888-01	2281-01	2546-01	59.64	1.126	4195	556.5	2778-03
87	191.25	64000	686.00	1946-01	2350-01	2623-01	59.66	1.161	4193	556.2	2882-03
87	191.25	65000	687.00	1742-01	2104-01	2348-01	59.67	1.039	4192	556.1	2882-03
87	191.25	66000	688.00	3105-01	3749-01	4184-01	59.79	1.857	4181	554.5	4555-03
87	191.25	67000	689.00	4555-01	5935-01	6689-01	59.81	2.970	4179	554.3	7301-03
87	191.25	68000	690.00	2115	2552	2846	59.97	12.68	4164	552.3	3108-02
87	191.25	69000	691.00	7377-01	8908-01	9940-01	59.78	4.410	4182	554.7	1085-02
87	191.25	70000	692.00	1876	2266	2528	59.78	11.22	4182	554.7	2759-02
87	191.25	71000	693.00								

DATE 05 MAR 76

AMES 3.5-211 1M48

PAGE 179

RUN  
NUMBER

PHI

X/L

TC NO

H/AREF  
R=1.0H/AREF  
R=0.9H/AREF  
R=0.85OREF  
BTU/  
FT2SECEXT TANK  
OOD7  
BTU/  
FT2SEC

H/WHT

TH  
DEG. FSTN NO  
R=0.9

(R=0.8512)

86	197.00	.80000	694.00	.4727-01	.5711-01	.6375-01	59.63	2.819	.4196	556.6	.6954-03
86	197.00	.87000	695.00	.6448-01	.1021	.1140	59.47	5.025	.4211	559.5	.1243-02
86	197.00	.92600	696.00	.1317	.1592	.1777	59.60	7.851	.4198	556.9	.1938-02
86	209.80	.15000-01	697.00	.6281-01	.7605-01	.8501-01	58.98	3.704	.4258	554.7	.9257-03
86	209.80	.30000-01	698.00	.2370	.2454	.3195	59.62	14.13	.4197	556.7	.3487-02
86	209.80	.50000-01	699.00	.3212	.3680	.4331	59.63	19.15	.4196	556.6	.4725-02
86	209.80	.70000-01	700.00	.2929	.3538	.3949	59.67	17.48	.4192	556.1	.4309-02
86	209.80	.10000-00	701.00	.2249	.2715	.3029	59.82	13.45	.4178	554.1	.3307-02
86	209.80	.15000	702.00	.1027	.1240	.1383	59.92	6.157	.4168	552.9	.1510-02
86	209.80	.20000	703.00	.4263-01	.5148-01	.5745-01	59.77	2.548	.4183	554.8	.6269-03
86	209.80	.30000	704.00	.2156-01	.2605-01	.2907-01	58.65	1.286	.4194	556.3	.3172-03
86	209.80	.35000	705.00	.2078-01	.2510-01	.2801-01	58.71	1.241	.4188	555.5	.3055-03
86	209.80	.37500	706.00	.4046-01	.4884-01	.5448-01	59.89	2.423	.4171	553.3	.5947-03
86	209.80	.50000	707.00	.5212-01	.6287-01	.7009-01	60.11	3.133	.4151	550.6	.7657-03
86	209.80	.60000	708.00	.4519-01	.5453-01	.6082-01	59.97	2.710	.4164	552.3	.6542-03
86	209.80	.70000	709.00	.5909-01	.7130-01	.7951-01	59.88	3.546	.4161	551.9	.6883-03
86	209.80	.80000	710.00	.2198-01	.2653-01	.2960-01	59.88	1.316	.4172	553.4	.3231-03
86	209.80	.87000	711.00	.4503-01	.5437-01	.6067-01	59.80	2.693	.4180	554.4	.6521-03
86	209.80	.92600	712.00	.8878-01	.1072	.1196	59.83	5.312	.4177	554.1	.1305-02
86	217.70	.15000-01	713.00	.7566-01	.9164-01	.1025	58.90	4.456	.4265	555.7	.1115-02
86	217.70	.30000-01	714.00	.2375	.2869	.3202	59.66	14.17	.4193	556.2	.3494-02
86	217.70	.50000-01	715.00	.2841	.3433	.3832	59.56	16.92	.4203	557.4	.4180-02
86	217.70	.70000-01	716.00	.3092	.3722	.4153	59.75	18.42	.4184	555.0	.4532-02
86	217.70	.10000-00	717.00	.1562	.1886	.2104	59.88	9.356	.4172	553.4	.2297-02
86	217.70	.20000	719.00	.3735-01	.4510-01	.5032-01	59.83	2.235	.4177	554.0	.5492-03
86	217.70	.30000	720.00	.2443-01	.2957-01	.3300-01	59.69	1.461	.4190	555.8	.3511-03
86	217.70	.35000	721.00	.2650-01	.3213-01	.3586-01	59.70	1.582	.4189	555.6	.3312-03
86	217.70	.37500	722.00	.2642-01	.3190-01	.3559-01	59.87	2.763	.4173	553.5	.3855-03
86	217.70	.50000	723.00	.4598-01	.5546-01	.6184-01	60.08	2.166	.4153	550.9	.6355-03
86	217.70	.60000	724.00	.3609-01	.4355-01	.4856-01	60.01	2.166	.4161	551.9	.5304-03
86	217.70	.70000	725.00	.3913-01	.4722-01	.5266-01	60.02	2.349	.4159	551.6	.5751-03
86	217.70	.80000	726.00	.2334-01	.2817-01	.3143-01	59.88	1.398	.4172	553.4	.3431-03
86	217.70	.87000	727.00	.3358-01	.4053-01	.4521-01	59.95	2.013	.4166	552.6	.4936-03
86	217.70	.92600	728.00	.1077	.1300	.1451	59.89	6.452	.4171	553.3	.1554-02

DATE 05 MAR 76

AMES 3.5-211 11H8

ARC3.5-211(11H8)OT /NIPPLE/P/TRIP

EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RN/L = 5.000

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
88	5.000	.0000	5.300	4.821	405.9	1332.	325.8	.5345	205.1	.2165-03	3721.	.1750-01
89	5.000	.0000	5.300	4.933	405.7	1313.	320.7	.5347	202.0	.2222-03	3692.	.1750-01
90	5.000	.0000	5.300	4.962	405.2	1307.	319.3	.5343	201.1	.2230-03	3683.	.1750-01
91	5.000	.0000	5.300	4.885	405.3	1320.	322.6	.5340	203.2	.2206-03	3703.	.1750-01
92	5.000	.0000	5.300	4.895	405.6	1319.	322.3	.5344	203.0	.2209-03	3701.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	R/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TW DEG. R	STN NO R=0.9
89	.00000	.00000	730.00	.3793	.4587	.5123	59.84	22.70	.4221	584.3	.5612-02
89	.00000	.00000	731.00	.5912-01	.1197	.1336	60.23	5.971	.4184	559.4	.1465-02
89	.00000	.00000	732.00	.7035-01	.8487-01	.9464-01	60.54	4.259	.4156	555.6	.1235-02
89	.00000	.00000	734.00	.4232	.5098	.5679	60.99	25.81	.4114	549.9	.5241-02
89	.00000	.00000	735.00	.7057	.8500	.9468	61.04	43.08	.4109	548.3	.1041-01
89	.00000	.00000	737.00	.5371	.7678	.8555	60.87	39.78	.4125	551.5	.3358-02
89	.00000	.00000	739.00	.5735	.6913	.7704	60.79	34.86	.4132	552.4	.3462-02
89	.00000	.00000	740.00	.5062	.6103	.6802	60.73	30.74	.4138	553.1	.7470-02
89	.00000	.00000	741.00	.4811	.5799	.6463	60.79	29.24	.4133	552.5	.7059-02
89	.00000	.00000	742.00	.5007	.6034	.6725	60.83	30.45	.4129	551.5	.4658-02
89	.00000	.00000	743.00	.3164	.3812	.4249	60.86	19.26	.4126	551.5	.2914-02
89	.00000	.00000	744.00	.2441	.2942	.3278	60.87	14.86	.4125	551.6	.2914-02
89	.00000	.00000	745.00	.1276	.2397	.2671	60.85	12.10	.4127	552.3	.1233-02
89	.00000	.00000	746.00	.9428-01	.1137	.1267	60.66	5.717	.4145	554.1	.1391-02
89	.00000	.00000	747.00	.8125-01	.9802-01	.1093	60.55	4.920	.4155	555.4	.1200-02
89	.00000	.00000	748.00	.6765-01	.8165-01	.9106-01	60.44	4.089	.4163	556.7	.9932-03
89	.00000	.00000	749.00	.6367-01	.7693-01	.8569-01	60.47	3.850	.4163	556.5	.5474-03
89	.00000	.00000	750.00	.4997-01	.6024-01	.6714-01	60.77	3.037	.4135	552.7	.7374-03
89	.00000	.00000	751.00	.5895-01	.7114-01	.7933-01	60.49	3.566	.4160	556.2	.8706-03
89	.00000	.00000	752.00	.5599-01	.6813-01	.7641-01	57.77	3.235	.4386	563.6	.9309-03
89	.00000	.00000	753.00	.5463-01	.6649-01	.7459-01	57.68	3.151	.4394	584.7	.8119-03
89	.00000	.00000	754.00	.5577-01	.6897-01	.7726-01	58.22	3.305	.4344	578.0	.6413-03

DATE 02 MAR 75  
A/CES 3.5-211 1148

ARC3.5-211(1H+8)OT /NIPPLE/P/TRIP												
RUN NUMBER	PHI	X/L	TC NO	H/M/REF				EXT TANK		H/M/HT	TM DEC. R	STN NO. R=0.9
				H/M/REF R=1.0	M/M/REF R=0.9	H/M/REF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC				
90	.00000	.60000	755.00	.5558-01	.6769-01	.7597-01	57.49	3.195	.4413	587.1	.8254-03	
90	.00000	.70000	756.00	.5543-01	.6740-01	.7557-01	57.92	3.210	.4372	581.8	.8221-03	
90	.00000	.80000	757.00	.5348-01	.6513-01	.7309-01	57.53	3.077	.4408	586.6	.7542-03	
90	.00000	.90000	759.00	.5305-01	.6441-01	.7213-01	58.37	3.097	.4329	576.0	.7858-03	
90	.55.000	.22000	759.00	.6339-01	.7721-01	.8665-01	57.51	3.646	.4411	586.9	.9414-03	
90	.55.000	.25000	760.00	.4330-01	.5249-01	.5873-01	58.80	2.546	.4289	570.7	.6425-03	
90	.55.000	.27000	761.00	.5938-01	.7190-01	.8037-01	59.14	3.511	.4257	565.4	.8774-03	
90	.55.000	.30000	762.00	.5010-01	.6086-01	.6818-01	58.22	2.917	.4344	577.9	.7424-03	
90	.55.000	.32000	763.00	.4931-01	.6000-01	.6729-01	57.78	2.849	.4385	583.4	.7317-03	
90	.55.000	.34000	764.00	.4777-01	.5816-01	.6526-01	57.58	2.751	.4404	585.9	.7122-03	
90	.55.000	.36000	765.00	.4807-01	.5854-01	.6559-01	57.53	2.765	.4409	586.6	.6955-03	
90	.55.000	.38000	766.00	.4573-01	.5572-01	.6254-01	57.50	2.697	.4412	587.0	.6794-03	
90	.55.000	.40000	767.00	.4573-01	.5572-01	.6254-01	57.43	2.626	.4412	587.0	.6794-03	
90	.67.500	.23000	768.00	.5178-01	.6301-01	.7069-01	57.69	2.987	.4394	584.6	.6595-03	
90	.67.500	.25000	769.00	.3789-01	.4594-01	.5140-01	58.75	2.226	.4294	571.3	.5635-03	
90	.67.500	.27000	770.00	.5587-01	.6889-01	.7701-01	59.06	3.359	.4264	567.4	.6406-03	
90	.67.500	.29000	771.00	.4531-01	.5493-01	.6146-01	58.77	2.663	.4292	571.1	.6703-03	
90	.67.500	.30000	772.00	.4654-01	.5653-01	.6333-01	58.23	2.710	.4342	577.8	.6896-03	
90	.67.500	.31000	773.00	.4698-01	.5713-01	.6405-01	57.94	2.722	.4370	581.5	.6568-03	
90	.67.500	.32000	774.00	.4610-01	.5609-01	.6290-01	57.77	2.634	.4386	583.9	.6769-03	
90	.67.500	.32500	775.00	.451-01	.5550-01	.6225-01	57.75	2.640	.4395	584.7	.6755-03	
90	.67.500	.33000	776.00	.4578-01	.5572-01	.6250-01	57.68	2.651	.4397	585.0	.6624-03	
90	.67.500	.33500	777.00	.4597-01	.5596-01	.6278-01	57.66	2.651	.4397	585.0	.6624-03	
90	.67.500	.34000	778.00	.4727-01	.5755-01	.6456-01	57.64	2.725	.4399	585.3	.7018-03	
90	.67.500	.34500	779.00	.4595-01	.5595-01	.6277-01	57.63	2.648	.4401	585.4	.6822-03	
90	.67.500	.35000	780.00	.4563-01	.5556-01	.6233-01	57.61	2.629	.4401	585.6	.6775-03	
90	.67.500	.35500	781.00	.4360-01	.5307-01	.5954-01	57.66	2.514	.4397	585.0	.6472-03	
90	.67.500	.36000	782.00	.4470-01	.5442-01	.6107-01	57.59	2.573	.4404	585.0	.6635-03	
90	.67.500	.36500	783.00	.4424-01	.5387-01	.6045-01	57.56	2.547	.4406	585.2	.6559-03	
90	.67.500	.37000	784.00	.4134-01	.5033-01	.5647-01	57.59	2.381	.4403	585.8	.6137-03	
90	.67.500	.37500	785.00	.4333-01	.5276-01	.5920-01	57.58	2.495	.4403	585.3	.6434-03	
90	.67.500	.38000	786.00	.4304-01	.5240-01	.5880-01	57.57	2.478	.4404	586.0	.6390-03	
90	.67.500	.39000	787.00	.4243-01	.5167-01	.5799-01	57.52	2.440	.4410	585.8	.6300-03	
90	.67.500	.40000	788.00	.4164-01	.5072-01	.5692-01	57.49	2.394	.4412	587.1	.6194-03	
90	.67.500	.50000	789.00	.4215-01	.5125-01	.5745-01	57.97	2.443	.4367	591.1	.6351-03	
90	.67.500	.60000	790.00	.4013-01	.4900-01	.5508-01	56.86	2.282	.4472	595.1	.5973-03	
90	.67.500	.70000	791.00	.4222-01	.5143-01	.5773-01	55.44	2.425	.4417	587.7	.6271-03	
90	.67.500	.80000	792.00	.4197-01	.5123-01	.5758-01	55.92	2.389	.4466	594.3	.6245-03	
90	.67.500	.90000	793.00	.3612-01	.4389-01	.4919-01	58.10	2.098	.4355	579.5	.5354-03	
90	.78.000	.27000	794.00	.4989-01	.6041-01	.6753-01	59.14	2.951	.4257	566.4	.7372-03	
90	.78.000	.27000	795.00	.3971-01	.4814-01	.5385-01	58.83	2.336	.4285	570.3	.5974-03	
90	.78.000	.29000	796.00	.3971-01	.5033-01	.5637-01	58.32	2.417	.4334	576.7	.5139-03	
90	.78.000	.31000	797.00	.4139-01	.5031-01	.5638-01	58.06	2.403	.4352	579.9	.6135-03	

DATE 05 MAR 76  
ANES 3.5-211 1H48

ARC3.5-211(1H48)OT /NIPPLE/P/TRIP										EXT TANK		H/M/HT	TH DEG. R	STN 30 R=0.9
RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT/SEC	QDET BTU/ FT/SEC						
90	78.000	32000	798.00	4122-01	5013-01	5620-01	57.92	2.388	4372	591.7	6114-03			
90	78.000	32500	799.00	4000-01	4865-01	5454-01	57.87	2.315	4377	592.3	5933-03			
90	78.000	33000	800.00	4048-01	4924-01	5522-01	57.84	2.341	4380	593.7	6005-03			
90	78.000	33500	801.00	4059-01	4939-01	5539-01	57.77	2.345	4385	593.5	6023-03			
90	78.000	34000	802.00	4060-01	4948-01	5543-01	57.78	2.288	4385	593.5	5926-03			
90	78.000	34500	803.00	4098-01	4987-01	5603-01	57.77	2.368	4386	593.6	5932-03			
90	78.000	35000	804.00	4203-01	5114-01	5736-01	57.74	2.427	4389	594.0	6037-03			
90	78.000	35500	805.00	3958-01	4815-01	5400-01	57.78	2.287	4385	593.5	5972-03			
90	78.000	36000	806.00	3915-01	4764-01	5344-01	57.75	2.261	4388	593.8	5912-03			
90	78.000	36500	807.00	3911-01	4638-01	5202-01	57.75	2.201	4389	593.9	5955-03			
90	78.000	37000	808.00	3985-01	4849-01	5439-01	57.74	2.301	4389	594.0	5973-03			
90	78.000	37500	809.00	4025-01	4899-01	5495-01	57.70	2.323	4392	594.4	5975-03			
90	78.000	38000	810.00	4123-01	5018-01	5629-01	57.71	2.383	4392	594.4	6022-03			
90	78.000	39000	811.00	4199-01	5111-01	5733-01	57.69	2.423	4393	594.6	6051-03			
90	78.000	40000	812.00	4076-01	4962-01	5567-01	57.66	2.350	4395	595.0	6051-03			
92	90.000	40000-01	815.00	4688	5591	6372	59.06	27.69	4322	580.6	5922-03			
92	90.000	40000-01	816.00	4534	5508	6171	58.82	26.67	4344	583.6	5925-03			
92	90.000	40000-01	817.00	4004	4866	5452	58.71	23.50	4355	585.0	5925-03			
92	90.000	40000-01	818.00	3910	4753	5327	58.64	22.93	4361	585.8	5925-03			
92	90.000	40000-01	819.00	5792	6555	7347	59.62	31.60	4363	585.4	5925-03			
92	90.000	40000-01	820.00	2736	3327	3729	58.60	16.03	4365	585.4	5925-03			
92	90.000	40000-01	821.00	1333	1629	1827	58.39	7.816	4365	585.4	5925-03			
90	90.000	40100	822.00	4034-01	4907-01	5502-01	57.87	2.335	4377	585.4	5925-03			
90	90.000	40200	823.00	3527-01	4285-01	4800-01	58.25	2.055	4341	582.4	5925-03			
90	90.000	40300	824.00	2877-01	3485-01	3898-01	58.95	1.856	4275	588.0	5925-03			
90	90.000	40400	825.00	4230-01	5192-01	5802-01	59.26	2.542	4245	584.5	5925-03			
90	90.000	40500	826.00	3593-01	4477-01	5008-01	59.81	2.172	4288	580.5	5925-03			
90	90.000	40600	827.00	3969-01	4842-01	5423-01	59.35	2.327	4332	580.5	5925-03			
90	90.000	40700	828.00	3811-01	4631-01	5190-01	58.09	2.214	4355	580.5	5925-03			
90	90.000	40800	829.00	3732-01	4539-01	5088-01	57.93	2.162	4371	581.0	5925-03			
90	90.000	40900	830.00	3959-01	4816-01	5400-01	57.85	2.230	4379	581.0	5925-03			
90	90.000	41000	831.00	3688-01	4486-01	5031-01	57.82	2.132	4382	581.0	5925-03			
90	90.000	41100	832.00	3640-01	4429-01	4967-01	57.81	2.105	4382	581.0	5925-03			
90	90.000	41200	833.00	3703-01	4505-01	5053-01	57.76	2.140	4385	581.0	5925-03			
90	90.000	41300	834.00	3435-01	6613-01	7417-01	57.77	3.140	4385	581.0	5925-03			
90	90.000	41400	835.00	1002	1219	1368	57.76	5.788	435	580.5	5925-03			
91	90.000	41500	836.00	6097-01	7384-01	8256-01	59.73	3.642	4263	580.5	5925-03			
91	90.000	41600	837.00	4772-01	5779-01	6460-01	59.76	2.852	4260	580.5	5925-03			
91	90.000	41700	838.00	4321-01	5232-01	5849-01	59.76	2.582	4260	580.5	5925-03			
91	90.000	41800	839.00	4004-01	4849-01	5420-01	59.76	2.393	4260	580.5	5925-03			
91	90.000	41900	840.00	3778-01	4575-01	5114-01	59.77	2.258	4260	580.5	5925-03			
91	90.000	42000	841.00	3378-01	4091-01	4574-01	59.75	2.019	4261	580.5	5925-03			
91	90.000	42100	842.00	3104-01	3759-01	4202-01	59.75	1.854	4261	580.5	5925-03			



APES 3.5-211 1448

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OFF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
91	90.000	.50000	835.00	.3795-01	.4593-01	.5132-01	59.95	2.275	.4242	570.4	.5841-03
91	90.000	.60000	835.00	.3930-01	.4766-01	.5333-01	59.38	2.334	.4238	577.9	.5952-03
91	90.000	.70000	837.00	.3138-01	.3802-01	.4252-01	59.60	1.870	.4275	574.7	.4559-03
91	90.000	.80000	839.00	.3515-01	.4263-01	.4771-01	59.34	2.086	.4259	578.1	.5234-03
91	90.000	.90000	939.00	.4233-01	.5198-01	.5809-01	59.85	2.559	.4252	571.7	.6283-03
91	112.50	.23000	840.00	.3065-01	.3711-01	.4148-01	59.83	1.834	.4253	571.9	.4556-03
91	112.50	.25000	841.00	.2451-01	.2973-01	.3318-01	60.46	1.648	.4195	564.0	.3652-03
91	112.50	.27000	842.00	.1060-01	.1279-01	.1426-01	60.60	.6444	.4163	559.7	.1572-03
91	112.50	.30000	843.00	.3449-01	.4173-01	.4662-01	60.03	2.070	.4235	568.4	.5125-03
91	112.50	.33000	844.00	.3392-01	.4107-01	.4591-01	59.78	2.028	.4259	572.5	.5044-03
91	112.50	.35000	845.00	.3286-01	.3980-01	.4449-01	59.75	1.953	.4261	572.9	.4997-03
91	112.50	.37000	846.00	.3304-01	.4001-01	.4472-01	59.77	1.975	.4259	572.7	.4913-03
91	112.50	.40000	847.00	.2960-01	.3584-01	.4007-01	59.78	1.706	.4259	572.5	.4402-03
91	112.50	.45000	848.00	.2855-01	.3457-01	.3854-01	59.78	1.706	.4259	572.5	.4245-03
91	112.50	.50000	849.00	.3951-01	.4780-01	.5340-01	60.04	2.372	.4234	569.3	.5871-03
91	112.50	.55000	850.00	.3206-01	.3877-01	.4330-01	60.18	1.929	.4221	567.5	.4762-03
91	112.50	.60000	851.00	.3421-01	.4146-01	.4638-01	59.50	2.035	.4284	576.0	.5331-03
91	112.50	.65000	852.00	.4771-01	.5057-01	.5658-01	59.41	2.478	.4293	577.2	.6210-03
91	112.50	.70000	853.00	.4611-01	.5585-01	.6245-01	59.69	2.752	.4267	583.7	.6859-03
91	112.50	.75000	854.00	.4587-01	.5549-01	.6245-01	59.47	2.756	.4231	588.8	.6816-03
91	112.50	.80000	855.00	.4410-01	.5346-01	.5981-01	59.05	2.622	.4289	576.6	.6555-03
91	112.50	.90000	856.00	.5374-01	.6509-01	.7277-01	59.73	3.210	.4263	573.2	.7993-03
91	125.40	.84000	857.00	.9303-01	.1127	.1260	59.68	5.551	.4266	573.8	.1324-02
91	125.40	.85000	858.00	.8405-01	.1018	.1139	59.61	5.010	.4274	574.6	.1231-02
91	125.40	.87000	859.00	.5034-01	.6101-01	.6825-01	59.49	2.935	.4285	576.1	.7492-03
91	125.40	.88000	861.00	.4508-01	.5464-01	.6112-01	59.47	2.691	.4287	576.3	.6713-03
91	125.40	.89000	862.00	.5289-01	.6412-01	.7173-01	59.47	3.145	.4287	576.5	.7873-03
91	125.40	.90000	863.00	.6095-01	.7394-01	.8258-01	59.62	3.634	.4273	574.5	.9259-03
91	125.40	.91000	864.00	.5310-01	.6427-01	.7184-01	59.87	3.179	.4250	571.4	.7594-03
91	125.40	.92000	865.00	.5933-01	.7266-01	.8129-01	59.42	3.561	.4232	577.1	.8222-03
91	123.30	.80000	866.00	.5766-01	.6913-01	.7731-01	59.63	3.403	.4272	574.4	.6492-03
91	123.30	.81000	867.00	.6260-01	.7343-01	.8212-01	59.58	3.611	.4277	575.0	.9217-03
91	123.30	.82000	868.00	.5784-01	.7006-01	.7834-01	59.68	3.452	.4269	573.8	.8674-03
91	123.30	.83000	869.00	.7201-01	.8721-01	.9751-01	59.72	4.300	.4264	573.3	.1071-02
91	135.00	.40000-01	870.00	.3903	.4715	.5263	60.45	23.59	.4195	564.1	.5793-02
91	135.00	.50000-01	871.00	.4003	.4944	.5522	60.21	24.62	.4216	567.2	.6074-02
91	135.00	.60000-01	872.00	.3331	.4029	.4500	60.12	20.03	.4227	569.3	.4595-02
91	135.00	.70000-01	873.00	.3093	.3735	.4174	60.14	18.57	.4227	569.3	.5237-02
91	135.00	.80000-01	874.00	.3559	.4304	.4908	60.15	21.40	.4225	568.1	.5237-02
91	135.00	.90000-01	875.00	.1893	.2285	.2553	60.09	6.231	.4224	567.9	.6288-02
91	135.00	.15000	876.00	.1237	.1254	.1401	60.09	6.231	.4229	569.6	.1541-02
91	135.00	.20000	877.00	.4707-01	.5695-01	.6363-01	60.00	2.824	.4239	569.6	.5955-03
91	135.00	.35000	878.00	.2790-01	.3377-01	.3774-01	59.91	1.672	.4246	570.5	.4148-03

DATE 05 MAR 76

AMES 3.5-211 1148

ARC3.5-211(1148)OT /NIPPLE/P/TRIP

EXT TAX

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	140/HT	TM DEG. R	STM NO R=0.9
91	135.00	40000	879.00	.2651-01	.3221-01	.3600-01	59.91	1.595	.4245	570.8	3525-03
91	135.00	50000	880.00	.6703-01	.8103-01	.9047-01	60.29	4.041	.4211	565.1	3524-01
91	135.00	55000	881.00	.6973-01	.8423-01	.9400-01	60.51	4.220	.4203	563.3	1035-02
91	135.00	60000	882.00	.6625-01	.8019-01	.8962-01	59.90	3.938	.4247	571.1	3549-03
91	135.00	65000	883.00	.7049-01	.8534-01	.9538-01	59.83	4.217	.4253	571.9	1015-02
91	135.00	70000	884.00	.6664-01	.8052-01	.9007-01	60.06	4.002	.4232	569.0	3533-03
91	135.00	75000	885.00	.5697-01	.6887-01	.7690-01	60.26	3.433	.4214	555.6	645-03
91	135.00	80000	886.00	.6281-01	.7615-01	.8512-01	59.76	3.759	.4260	572.7	9352-03
91	135.00	84000	887.00	.1254	.1519	.1698	59.79	4.499	.4257	572.4	185-02
91	135.00	85000	888.00	.1608	.1948	.2177	59.77	5.613	.4259	572.7	2332-02
91	135.00	86000	889.00	.7205-01	.8727-01	.9757-01	59.71	4.322	.4255	573.4	1072-02
91	135.00	87000	890.00	.6793-01	.8230-01	.9204-01	59.59	4.048	.4276	574.9	1011-02
91	135.00	88000	891.00	.6780-01	.8216-01	.9189-01	59.55	4.037	.4260	575.4	1005-02
91	135.00	89000	892.00	.7467-01	.9049-01	.1012	59.54	4.446	.4261	575.5	1111-02
91	135.00	90000	893.00	.8222-01	.9959-01	.1113	59.70	4.908	.4265	573.6	1221-02
91	135.00	91000	894.00	.6435-01	.7811-01	.8728-01	59.95	3.870	.4242	572.3	5534-03
91	135.00	92000	895.00	.9939-01	.1204	.1347	59.45	5.903	.4269	575.7	1413-02
91	135.00	93000	896.00	.2662-01	.3231-01	.3617-01	59.15	1.575	.4217	566.5	3567-03
91	142.30	94000	897.00	.5239-01	.6338-01	.7080-01	60.04	3.145	.4234	569.3	7552-03
91	142.30	95000	898.00	.5044-01	.6101-01	.6815-01	60.11	3.032	.4228	568.4	7541-03
91	142.30	96000	899.00	.5787-01	.6999-01	.7817-01	60.14	3.461	.4235	569.0	6501-03
91	142.30	97000	900.00	.5372-01	.6492-01	.7247-01	60.37	3.243	.4234	565.2	5935-03
91	142.30	98000	901.00	.6693-01	.8103-01	.9052-01	60.07	4.024	.4231	568.9	9953-03
91	142.30	99000	902.00	.9341-01	.1008	.1126	60.22	5.022	.4218	567.1	2333-02
92	157.50	34500	914.00	.1744	.2126	.2389	57.73	10.07	.4446	567.2	2333-02
92	157.50	35000	918.00	.2621	.3185	.3569	59.72	15.39	.4453	567.5	2333-02
92	157.50	36000	919.00	.2503	.3162	.3543	58.75	15.29	.4351	564.5	2333-02
92	157.50	37000	920.00	.1701	.2066	.2315	58.78	9.936	.4346	564.1	2333-02
92	157.50	38000	922.00	.3973-01	.4829-01	.5411-01	58.67	2.331	.4359	565.5	2333-02
92	157.50	39000	923.00	.4443-01	.5403-01	.6057-01	59.53	2.601	.4371	567.2	2333-02
92	157.50	40000	926.00	.6266-01	.7384-01	.8294-01	57.78	3.453	.4442	567.8	2333-02
92	157.50	41000	927.00	.8755-01	.1068	.1200	57.69	5.050	.4450	569.5	2333-02
92	157.50	42000	928.00	.8222-01	.1003	.1127	57.63	4.738	.4455	569.7	2333-02
92	157.50	43000	929.00	.6922-01	.1077	.1210	57.59	5.090	.4460	569.7	2333-02
92	157.50	44000	930.00	.9416-01	.1143	.1291	57.65	5.428	.4454	569.7	2333-02
92	157.50	45000	931.00	.1110	.1352	.1518	57.95	6.430	.4428	569.7	2333-02
92	157.50	46000	932.00	.1191	.1449	.1625	59.32	6.544	.4431	569.7	2333-02
92	157.50	47000	933.00	.2049	.2498	.2835	57.84	11.65	.4456	569.9	2333-02
92	157.50	48000	934.00	.4605-01	.5600-01	.6278-01	58.53	2.655	.4472	567.2	2333-02
92	163.12	41500	934.00	.5641-01	.6860-01	.7692-01	59.50	3.300	.4472	567.2	2333-02
92	163.12	42000	935.00	.1018	.1238	.1388	59.42	5.645	.4491	568.6	2333-02
92	163.12	43000	937.00	.9603-01	.1176	.1319	58.44	5.651	.4490	569.1	2333-02
92	163.12	44000	938.00	.1003	.1220	.1368	58.52	5.871	.4472	567.2	2333-02
92	163.12	44500	939.00								

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DATE 09 MAR 76

AVES 3.5-211 11448

ARC3.5-211 1148107 /NIPPLE/P/TRIP

EXT TANK

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(R08F13)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
92	163.12	45000	942.00	.1019	.1239	.1389	58.55	5.968	.4369	588.9	.1520-02
92	163.12	50000	941.00	.7835-01	.9518-01	.1066	58.81	4.608	.4345	583.7	.1167-02
92	163.12	60000	942.00	.6082-01	.7396-01	.8292-01	58.54	3.560	.4371	587.1	.9059-03
92	163.12	70000	943.00	.5775-01	.7022-01	.7872-01	58.55	3.381	.4370	587.0	.8611-03
92	163.12	80000	944.00	.5115-01	.6232-01	.6995-01	58.00	2.967	.4420	593.8	.7639-03
92	168.00	35000	945.00	.2621-01	.3185-01	.3569-01	58.72	1.539	.4353	584.8	.3906-03
92	168.00	36000	946.00	.2579-01	.3134-01	.3512-01	58.73	1.514	.4354	584.9	.3844-03
92	168.00	37000	947.00	.2546-01	.3094-01	.3467-01	58.67	1.495	.4352	584.7	.3794-03
92	168.00	37500	948.00	.2576-01	.3131-01	.3509-01	58.67	1.511	.4359	585.5	.3840-03
92	168.00	39000	951.00	.3315-01	.4030-01	.4517-01	58.64	1.944	.4361	585.9	.4542-03
92	168.00	39500	952.00	.4770-01	.5799-01	.6500-01	58.62	2.796	.4363	586.2	.7111-03
92	168.00	40000	953.00	.4890-01	.5946-01	.6665-01	58.58	2.865	.4367	586.6	.7291-03
92	168.00	40500	954.00	.4618-01	.5615-01	.6295-01	58.56	2.704	.4369	586.9	.6886-03
92	168.00	41000	955.00	.4000-01	.4862-01	.5449-01	58.66	2.346	.4359	585.6	.5962-03
92	168.00	41500	956.00	.6013-01	.7313-01	.8199-01	58.52	3.519	.4373	587.4	.8967-03
92	168.00	42000	957.00	.8069-01	.9813-01	.1100	58.49	4.719	.4376	587.8	.1203-02
92	168.00	42500	958.00	.7553-01	.9186-01	.1030	58.49	4.418	.4375	587.7	.1126-02
92	168.00	43000	959.00	.1844	.2243	.2516	58.41	10.77	.4382	588.7	.2751-02
92	168.00	44000	960.00	.1821	.2215	.2484	58.43	10.64	.4381	588.5	.2716-02
92	168.00	44500	961.00	.1046	.1333	.1495	58.49	6.411	.4375	587.8	.1635-02
92	168.00	45000	962.00	.8768-01	.1066	.1195	58.53	5.132	.4372	587.3	.1308-02
92	168.00	45500	963.00	.8861-01	.1077	.1208	58.57	5.190	.4368	586.7	.1321-02
92	168.00	46000	964.00	.9061-01	.1102	.1235	58.59	5.309	.4366	586.4	.1351-02
92	168.00	47000	965.00	.1063	.1292	.1448	58.61	6.228	.4364	586.2	.1584-02
92	168.00	48000	966.00	.9147-01	.1112	.1246	58.65	5.365	.4360	585.7	.1363-02
92	168.00	49000	967.00	.5153-01	.6261-01	.7016-01	58.72	3.026	.4353	584.8	.7679-03
92	168.00	49500	968.00	.6755-01	.8234-01	.9246-01	57.86	3.908	.4434	595.6	.1009-02
92	168.00	49800	969.00	.8601-01	.1049	.1178	57.79	4.971	.4440	596.5	.1285-02
92	168.00	50000	970.00	.9869-01	.1204	.1352	57.72	5.696	.4447	597.4	.1475-02
92	168.00	50200	971.00	.1021	.1245	.1398	57.75	5.895	.4444	597.0	.1326-02
92	168.00	50400	972.00	.1030	.1256	.1411	57.78	6.843	.4441	596.6	.1540-02
92	168.00	50600	973.00	.1179	.1436	.1611	58.06	15.10	.4415	593.1	.1760-02
92	168.00	50800	974.00	.1289	.1568	.1758	58.46	7.536	.4378	588.1	.1923-02
92	168.00	51000	975.00	.2601	.3168	.3555	58.08	15.10	.4414	592.9	.3983-02
92	168.00	51200	976.00	.5984-01	.7294-01	.8190-01	57.91	3.455	.4430	595.1	.8941-03
92	168.00	51400	977.00	.1066	.1296	.1453	58.65	6.255	.4361	585.8	.1590-02
92	168.00	51600	978.00	.1839	.2234	.2503	58.87	10.83	.4340	583.0	.2740-02
92	168.00	51800	979.00	.3389	.4114	.4608	58.96	19.98	.4332	581.9	.5046-02
89	180.00	40000-01	600.00	.3374	.4063	.4525	62.13	20.96	.4102	557.0	.5020-02
88	180.00	50000-01	601.00	.3408	.4106	.4575	61.96	21.11	.4118	559.1	.5073-02
88	180.00	60000-01	602.00	.2930	.3531	.3935	61.88	18.13	.4125	560.1	.4363-02
88	180.00	70000-01	603.00	.2554	.3079	.3430	61.87	15.80	.4126	560.2	.3803-02
88	180.00	80000-01	604.00	.3205	.3862	.4304	61.91	9.84	.4123	559.8	.4772-02

ORIGINAL PAGE IS  
OF POOR QUALITY

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AMES 3.5-211 1148

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(RMBF13)

RUN NUMBER	PHI	X/L	TC NO	H/AREF R=1.0	H/AREF R=0.9	H/AREF R=0.85	OREF BTU/ FT2SEC	EXT TANK ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
88	180.00	.10000+00	605.00	.1957	.1876	.2091	61.92	9.641	.4122	559.6	.2318-02
88	180.00	.15000	606.00	.8726-01	.1051	.1171	62.00	5.410	.4115	558.6	.1298-02
88	180.00	.20000	607.00	.4008-01	.4831-01	.5383-01	61.88	2.480	.4125	560.0	.5968-03
88	180.00	.31000	608.00	.3178-01	.3830-01	.4268-01	61.86	1.966	.4127	560.3	.4732-03
88	180.00	.30000	610.00	.2324-01	.2800-01	.3120-01	61.98	1.441	.4116	558.9	.3460-03
88	180.00	.35000	611.00	.2385-01	.2873-01	.3200-01	62.05	1.480	.4110	557.9	.3550-03
88	180.00	.36000	612.00	.2295-01	.2765-01	.3080-01	62.01	1.423	.4113	558.4	.3416-03
88	180.00	.37000	613.00	.2233-01	.2798-01	.3117-01	61.99	1.440	.4116	558.8	.3457-03
88	180.00	.37500	614.00	.2263-01	.2727-01	.3038-01	61.97	1.402	.4118	559.0	.3369-03
88	180.00	.38000	615.00	.2295-01	.2765-01	.3081-01	61.95	1.422	.4119	559.2	.3416-03
88	180.00	.38500	616.00	.3197-01	.3852-01	.4292-01	61.93	1.980	.4121	559.4	.4759-03
88	180.00	.39000	617.00	.4798-01	.5782-01	.6443-01	61.88	2.969	.4126	560.1	.7144-03
88	180.00	.39500	618.00	.4979-01	.6001-01	.6687-01	61.87	3.081	.4126	560.2	.7414-03
88	180.00	.40000	619.00	.4949-01	.5965-01	.6648-01	61.85	3.061	.4129	560.5	.7370-03
88	180.00	.40500	620.00	.5391-01	.6498-01	.7241-01	61.82	3.333	.4131	560.8	.8028-03
88	180.00	.41000	621.00	.8072-01	.9730-01	.1084	61.79	4.988	.4133	561.2	.1202-02
88	180.00	.41500	622.00	.1174	.1415	.1578	61.75	7.249	.4137	561.7	.1749-02
88	180.00	.42000	624.00	.1499	.1807	.2014	61.75	9.254	.4138	561.7	.2232-02
88	180.00	.43000	625.00	.1562	.1883	.2099	61.75	9.644	.4138	561.8	.2326-02
88	180.00	.44000	626.00	.2125	.2563	.2856	61.75	13.12	.4137	561.7	.3166-02
88	180.00	.45000	627.00	.2551	.3076	.3428	61.76	15.76	.4138	561.6	.3800-02
88	180.00	.45000	628.00	.2673	.3222	.3591	61.78	16.51	.4135	561.3	.3981-02
88	180.00	.45500	629.00	.2364	.2849	.3175	61.84	14.62	.4129	560.6	.520-02
88	180.00	.46000	630.00	.1941	.2340	.2608	61.77	11.99	.4135	561.4	.2891-02
88	180.00	.47000	631.00	.9803-01	.1182	.1317	61.75	6.053	.4138	561.8	.1460-02
88	180.00	.48000	634.00	.5104-01	.6153-01	.6858-01	61.78	3.153	.4135	561.3	.7601-03
88	180.00	.49000	633.00	.2660-01	.3207-01	.3574-01	61.82	1.645	.4131	560.8	.3962-03
88	180.00	.50000	634.00	.2882-01	.3473-01	.3869-01	61.95	1.785	.4119	559.3	.4290-03
88	180.00	.50000	635.00	.9053-01	.1091	.1215	62.03	5.616	.4112	558.2	.1347-02
88	180.00	.50000	636.00	.6745-01	.8133-01	.9066-01	61.72	4.163	.4140	562.1	.1005-02
88	180.00	.50000	637.00	.5423-01	.6540-01	.7290-01	61.66	3.344	.4145	562.8	.8078-03
88	180.00	.70000	638.00	.5557-01	.6701-01	.7470-01	61.69	3.428	.4143	562.4	.8278-03
88	180.00	.75000	639.00	.5821-01	.7016-01	.7819-01	61.83	3.599	.4130	560.7	.8668-03
88	180.00	.80000	640.00	.5915-01	.7137-01	.7958-01	61.52	3.639	.4159	564.6	.8815-03
88	180.00	.95000	641.00	.7165-01	.8649-01	.9648-01	61.37	4.397	.4172	566.4	.1068-02
88	180.00	.86000	642.00	.8050-01	.9720-01	.1084	61.30	4.934	.4179	567.4	.1200-02
88	180.00	.87000	643.00	.9388-01	.1134	.1265	61.25	5.751	.4133	567.9	.1400-02
88	180.00	.88000	644.00	.9724-01	.1174	.1310	61.23	5.954	.4185	568.2	.1450-02
88	180.00	.89000	645.00	.1044	.1260	.1406	61.32	6.401	.4177	567.1	.1557-02
88	180.00	.90000	646.00	.1174	.1416	.1579	61.59	7.229	.4153	563.8	.1749-02
88	180.00	.92600	648.00	.2611	.3150	.3513	61.52	16.05	.4158	564.5	.3891-02
88	180.00	.95000	649.00	.1504-01	.1816-01	.2026-01	61.26	.9211	.4183	567.9	.2243-03
88	191.25	.35000	650.00	.2266-01	.2729-01	.3039-01	62.08	1.407	.4107	567.6	.3372-03

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AMES 3.5-211 1H48

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(RREF13)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HIT	TH DEQ. R	STN NO R=0.8
88	191.25	36000	651.00	.2191-01	.2638-01	.2938-01	62.12	1.351	.4103	557.1	.3260-03
88	191.25	37000	652.00	.3278-01	.3947-01	.4396-01	62.15	2.037	.4101	556.7	.4877-03
88	191.25	37500	653.00	.4372-01	.5265-01	.5863-01	62.14	2.717	.4101	556.8	.6506-03
88	191.25	38000	654.00	.4006-01	.4823-01	.5371-01	62.17	2.491	.4098	556.4	.5960-03
88	191.25	38500	655.00	.4177-01	.5029-01	.5601-01	62.15	2.596	.4100	556.7	.6215-03
88	191.25	39000	656.00	.4786-01	.5764-01	.6420-01	62.11	2.973	.4105	557.3	.7122-03
88	191.25	39500	657.00	.5598-01	.6741-01	.7508-01	62.12	3.477	.4104	557.1	.8329-03
88	191.25	40000	658.00	.6113-01	.7362-01	.8200-01	62.07	3.794	.4108	557.8	.9097-03
88	191.25	40500	659.00	.6583-01	.7929-01	.8831-01	62.08	4.087	.4107	557.6	.9797-03
88	191.25	41500	661.00	.8151-01	.9817-01	.1093	62.06	5.059	.4109	557.8	.1213-02
88	191.25	42000	662.00	.1233	.1485	.1654	62.03	7.647	.4112	557.2	.1835-02
88	191.25	42500	663.00	.1354	.1631	.1817	62.04	8.401	.4111	558.1	.2015-02
88	191.25	43000	664.00	.1708	.2057	.2282	62.06	10.60	.4109	557.9	.2542-02
88	191.25	43500	665.00	.1630	.1964	.2187	62.06	10.12	.4109	557.8	.2426-02
88	191.25	45000	666.00	.9758-01	.1175	.1309	62.05	6.054	.4110	558.0	.1452-02
88	191.25	45500	667.00	.1076	.1296	.1444	62.03	6.675	.4111	558.2	.1602-02
88	191.25	46000	668.00	.1078	.1299	.1447	62.06	6.592	.4109	557.9	.1605-02
88	191.25	47000	669.00	.1292	.1557	.1734	62.04	8.017	.4111	558.1	.1923-02
88	191.25	48000	670.00	.1200	.1446	.1610	62.10	7.449	.4109	557.8	.1786-02
88	191.25	49000	671.00	.9742-01	.1173	.1307	62.10	6.049	.4106	557.4	.1450-02
88	191.25	50000	672.00	.9765-01	.1176	.1309	62.19	6.073	.4097	556.2	.1453-02
88	191.25	60000	673.00	.5541-01	.6675-01	.7435-01	62.03	3.437	.4112	558.2	.8247-03
88	191.25	70000	674.00	.5057-01	.6092-01	.6787-01	61.99	3.135	.4115	558.7	.7527-03
89	191.25	85000	676.00	.6290-01	.7591-01	.8457-01	60.45	3.802	.4165	556.7	.9291-03
89	191.25	86000	677.00	.6874-01	.8286-01	.9354-01	60.40	4.152	.4169	557.2	.1015-02
89	191.25	87000	678.00	.7675-01	.9263-01	.1033	60.40	4.635	.4169	557.3	.1134-02
89	191.25	88000	679.00	.8740-01	.1055	.1177	60.34	5.274	.4174	558.0	.1291-02
89	191.25	89000	680.00	.9660-01	.1156	.1300	60.42	5.837	.4167	557.0	.1427-02
89	191.25	90000	681.00	.1093	.1319	.1471	60.54	6.619	.4156	555.6	.614-02
89	191.25	91000	682.00	.1112	.1413	.1575	60.74	7.117	.4137	553.1	.1729-02
89	191.25	92600	683.00	.2321	.2800	.3123	60.46	14.03	.4164	556.6	.3427-02
89	191.25	93000	684.00	.2869-01	.3464-01	.3866-01	60.24	1.728	.4184	559.3	.4240-03
89	197.00	93500	685.00	.2656-01	.3202-01	.3569-01	60.71	1.612	.4140	553.4	.3919-03
89	197.00	986.00	686.00	.2597-01	.3131-01	.3490-01	60.75	1.578	.4136	552.9	.3833-03
89	197.00	987.00	687.00	.2584-01	.3115-01	.3472-01	60.78	1.571	.4133	552.5	.3813-03
89	197.00	988.00	688.00	.2809-01	.3386-01	.3774-01	60.81	1.708	.4130	552.1	.4145-03
89	197.00	989.00	689.00	.6516-01	.7850-01	.8746-01	60.95	3.971	.4117	550.4	.9610-03
89	197.00	990.00	690.00	.8446-01	.1018	.1134	60.95	5.148	.4117	550.4	.1246-02
89	197.00	991.00	691.00	.1996	.2404	.2678	61.02	12.18	.4111	549.5	.2943-02
89	197.00	992.00	692.00	.6692-01	.8063-01	.8982-01	60.95	4.079	.4118	550.4	.9870-03
89	197.00	994.00	694.00	.4694-01	.5660-01	.6309-01	60.69	2.849	.4142	553.7	.6928-03
89	197.00	995.00	695.00	.7597-01	.9165-01	.1022	60.53	4.598	.4157	555.7	.1122-02
89	197.00	996.00	696.00	.2306	.2782	.3102	60.53	13.96	.4157	555.7	.3404-02

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APES 3.5-211 1H48

RUN NUMBER	PHI	X/L	TC NO	ARC3.5-211(1H48)OT /NIPPLE/P/TRIP				EXT TANK		H4/HT	TH DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC				
89	209.80	.15000-01	697.00	.9296-01	.1123	.1254	60.04	5.581	.4203	551.8		.1375-02
89	209.80	.30000-01	698.00	.3572	.4307	.4802	60.67	21.67	.4144	554.0		.5272-02
89	209.80	.50000-01	699.00	.3874	.4671	.5206	60.72	23.52	.4139	553.3		.5717-02
89	209.80	.70000-01	700.00	.3919	.4724	.5265	60.78	23.82	.4134	552.6		.5782-02
89	209.80	.10000-00	701.00	.2098	.2528	.2816	60.92	12.78	.4121	550.8		.3094-02
89	209.80	.15000	702.00	.1202	.1448	.1614	61.01	7.336	.4112	549.7		.1773-02
89	209.80	.20000	703.00	.4769-01	.5747-01	.6403-01	60.88	2.903	.4124	551.3		.7035-03
89	209.80	.30000	704.00	.3213-01	.3874-01	.4319-01	60.70	1.950	.4141	553.6		.4742-03
89	209.80	.35000	705.00	.3725-01	.4489-01	.5002-01	60.90	2.269	.4122	551.1		.5496-03
89	209.80	.37500	706.00	.9933-01	.1196	.1332	61.05	6.064	.4109	549.2		.1465-02
89	209.80	.50000	707.00	.9783-01	.1178	.1312	61.15	5.983	.4099	547.9		.1442-02
89	209.80	.60000	708.00	.6325-01	.7617-01	.8483-01	61.11	3.865	.4103	548.5		.9325-03
89	209.80	.70000	709.00	.7158-01	.8621-01	.9602-01	61.08	4.372	.4105	548.8		.1055-02
89	209.80	.80000	710.00	.5072-01	.6111-01	.6808-01	60.92	3.090	.4120	550.8		.7481-03
89	209.80	.87000	711.00	.6418-01	.7735-01	.8619-01	60.86	3.906	.4126	551.5		.9469-03
89	209.80	.92600	712.00	.1657	.1998	.2226	60.78	10.07	.4134	552.6		.2445-02
89	217.70	.15000-01	713.00	.8648-01	.1045	.1167	59.94	5.183	.4212	563.1		.1279-02
89	217.70	.30000-01	714.00	.3601	.4342	.4841	60.69	21.86	.4142	553.6		.5315-02
89	217.70	.50000-01	715.00	.3763	.4539	.5060	60.64	22.82	.4147	554.3		.5556-02
89	217.70	.70000-01	716.00	.4676	.5635	.6279	60.87	28.46	.4129	551.5		.6898-02
89	217.70	.10000-00	717.00	.2399	.2890	.32.7	61.00	14.64	.4113	549.8		.3539-02
89	217.70	.15000	718.00	.1468	.1769	.197J	61.06	8.967	.4107	549.0		.2165-02
89	217.70	.20000	719.00	.5323-01	.6413-01	.7145-01	60.96	3.245	.4117	550.3		.7851-03
89	217.70	.30000	720.00	.3013-01	.3632-01	.4048-01	60.75	1.830	.4136	552.9		.4446-03
89	217.70	.35000	721.00	.2414-01	.2909-01	.3242-01	60.89	1.470	.4123	551.2		.3561-03
89	217.70	.37500	722.00	.2540-01	.3059-01	.3408-01	61.04	1.550	.4109	549.3		.3745-03
89	217.70	.50000	723.00	.7250-01	.8730-01	.9723-01	61.11	4.431	.4102	548.4		.1069-02
89	217.70	.60000	724.00	.7620-01	.9175-01	.1022	61.14	4.659	.4100	548.0		.1123-02
89	217.70	.70000	725.00	.7201-01	.8672-01	.9659-01	61.17	4.398	.4106	548.9		.1062-02
89	217.70	.80000	726.00	.5617-01	.6768-01	.7541-01	60.92	3.422	.4121	550.8		.8266-03
89	217.70	.87000	727.00	.1010	.1217	.1356	61.00	6.162	.4113	549.9		.1490-02
89	217.70	.92600	728.00	.1440	.1736	.1934	60.84	8.762	.4127	551.7		.2125-02

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AMES 3.5-21: 1M48

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## EXTERNAL TANK

ARC3.5-21(1M48)OT /NIPPLE/P/TRIP

EXT TANK

(RREF14)

## PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
93	.0000	.0000	5.300	5.032	406.0	1297.	316.7	.5356	199.4	.2294-03	3668.	.1750-01
94	.0000	.0000	5.300	4.788	405.6	1337.	327.1	.5339	206.0	.2175-03	3728.	.1750-01
95	.0000	.0000	5.300	4.868	406.0	1324.	323.7	.5348	203.9	.2201-03	3709.	.1750-01
95	.0000	.0000	5.300	5.133	405.8	1280.	312.5	.5358	196.8	.2285-03	3644.	.1750-01
97	.0000	.0000	5.300	4.742	407.1	1348.	330.0	.5356	207.8	.2163-03	3745.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
96	.00000	.30000-02	730.00	.3590	.4366	.4894	56.69	20.35	.4369	569.0	.5251-02
96	.00000	.10000-01	731.00	.7730-01	.9387-01	.1051	57.07	4.412	.4333	564.3	.1129-02
96	.00000	.15000-01	732.00	.4271-01	.5181-01	.5798-01	57.36	2.450	.4305	560.7	.6234-03
96	.00000	.25000-01	734.00	.3282	.3973	.4441	57.94	19.02	.4250	553.4	.4783-02
96	.00000	.30000-01	735.00	.5009	.6062	.6773	58.03	29.07	.4240	552.2	.7298-02
96	.00000	.40000-01	737.00	.5096	.6170	.6897	57.86	29.48	.4257	554.4	.7426-02
96	.00000	.45000-01	738.00	.5151	.6239	.6976	57.77	29.76	.4265	555.4	.7509-02
96	.00000	.60000-01	739.00	.4012	.4860	.5434	57.73	23.16	.4269	556.0	.5849-02
96	.00000	.70000-01	740.00	.3820	.4625	.5170	57.86	22.10	.4257	554.4	.5567-02
96	.00000	.80000-01	741.00	.4046	.4897	.5473	57.95	23.44	.4249	553.3	.5895-02
96	.00000	.10000-00	742.00	.2440	.2952	.3298	58.08	14.17	.4235	551.6	.3553-02
96	.00000	.12500	743.00	.1875	.2267	.2533	58.19	10.91	.4225	550.2	.2730-02
96	.00000	.15000	744.00	.1420	.1718	.1918	58.23	8.272	.4221	549.7	.2068-02
96	.00000	.17500	745.00	.8903-01	.1077	.1203	58.20	5.182	.4224	550.1	.1296-02
96	.00000	.20000	746.00	.6083-01	.7361-01	.8225-01	58.03	3.530	.4240	552.2	.8860-03
96	.00000	.21500	747.00	.5274-01	.6383-01	.7132-01	58.02	3.060	.4242	552.4	.7683-03
96	.00000	.23000	748.00	.4325-01	.5233-01	.5847-01	58.05	2.511	.4238	551.9	.6299-03
96	.00000	.24000	749.00	.4111-01	.4971-01	.5552-01	58.25	2.394	.4220	549.5	.5984-03
96	.00000	.25000	750.00	.3218-01	.3883-01	.4331-01	58.83	1.893	.416-	542.2	.4676-03
96	.00000	.30000	751.00	.4035-01	.4878-01	.5446-01	58.36	2.355	.4209	548.1	.5872-03
96	.00000	.35000	752.00	.4021-01	.4855-01	.5416-01	60.95	2.451	.4175	553.3	.5973-03
95	.00000	.40000	753.00	.3897-01	.4709-01	.5256-01	60.69	2.365	.4199	566.6	.5792-03
95	.00000	.50000	754.00	.3926-01	.4710-01	.5250-01	61.32	2.395	.4141	558.7	.5795-03

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AMES 3.5-211 1M48

ARC3.5-211(1M48)OT /NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEO. R	STN NO R=0.9
95	.00000	.60000	755.00	.3636-01	.4395-01	.4908-01	60.95	2.201	.4212	568.3	.5406-03
95	.00000	.70000	756.00	.3616-01	.4367-01	.4872-01	60.88	2.201	.4181	564.2	.5372-03
95	.00000	.80000	757.00	.3525-01	.4261-01	.4758-01	60.92	2.133	.4215	568.7	.5241-03
95	.00000	.90000	758.00	.3551-01	.4404-01	.4811-01	61.20	2.234	.4152	560.2	.5419-03
95	.55.000	.20000	759.00	.4487-01	.5410-01	.6030-01	61.36	2.753	.4137	558.2	.6657-03
95	.55.000	.25000	760.00	.3076-01	.3696-01	.4111-01	62.39	1.919	.4042	545.3	.4551-03
95	.55.000	.27000	761.00	.4157-01	.4992-01	.5549-01	62.62	2.603	.4021	542.5	.6147-03
95	.55.000	.30000	762.00	.4025-01	.4847-01	.5399-01	61.67	2.482	.4108	554.3	.5966-03
95	.55.000	.32000	763.00	.4073-01	.4912-01	.5477-01	61.23	2.367	.4149	559.8	.6045-03
95	.55.000	.34000	764.00	.3879-01	.4682-01	.5223-01	61.01	2.412	.4170	562.6	.5761-03
95	.55.000	.36000	765.00	.3963-01	.4785-01	.5339-01	60.88	2.382	.4182	564.2	.5887-03
95	.55.000	.38000	766.00	.3918-01	.4733-01	.5282-01	60.80	2.371	.4189	565.2	.5822-03
95	.55.000	.40000	767.00	.3905-01	.4718-01	.5267-01	60.72	2.526	.4195	566.2	.5804-03
95	.55.000	.42000	768.00	.4107-01	.4949-01	.5515-01	61.50	2.647	.4125	566.5	.6091-03
95	.67.500	.23000	769.00	.2898-01	.3482-01	.3873-01	62.39	1.908	.4024	545.3	.4287-03
95	.67.500	.27000	770.00	.4229-01	.5079-01	.5646-01	62.58	2.299	.4049	546.3	.5459-03
95	.67.500	.29000	771.00	.3689-01	.4434-01	.4932-01	62.31	2.346	.4098	552.9	.5628-03
95	.67.500	.30000	772.00	.3798-01	.4573-01	.5092-01	61.78	2.433	.4124	556.4	.5616-03
95	.67.500	.31000	773.00	.3956-01	.4767-01	.5312-01	61.34	2.322	.4139	558.5	.5574-03
95	.67.500	.32000	774.00	.3785-01	.4564-01	.5087-01	61.50	2.303	.4142	557.5	.5575-03
95	.67.500	.32500	775.00	.3756-01	.4530-01	.5049-01	61.31	2.299	.4151	560.1	.5609-03
95	.67.500	.33000	776.00	.3756-01	.4531-01	.5052-01	61.18	2.312	.4153	560.4	.5468-03
95	.67.500	.33500	777.00	.3779-01	.4558-01	.5083-01	61.15	2.252	.4157	560.9	.5539-03
95	.67.500	.34000	778.00	.3684-01	.4444-01	.4956-01	61.08	2.279	.4161	561.4	.5539-03
95	.67.500	.34500	779.00	.3731-01	.4502-01	.5020-01	61.10	2.300	.4163	561.7	.5550-03
95	.67.500	.35000	780.00	.3766-01	.4545-01	.5069-01	61.12	2.285	.4160	561.2	.5575-03
95	.67.500	.35500	781.00	.3738-01	.4511-01	.5030-01	61.02	2.291	.4168	562.4	.5445-03
95	.67.500	.36000	782.00	.3754-01	.4531-01	.5054-01	61.02	2.238	.4168	562.4	.5095-03
95	.67.500	.37000	783.00	.3667-01	.4426-01	.4937-01	61.05	2.095	.4166	562.1	.5330-03
95	.67.500	.38000	784.00	.3431-01	.4141-01	.4619-01	61.02	2.190	.4168	562.4	.5323-03
95	.67.500	.39000	785.00	.3589-01	.4332-01	.4832-01	60.99	2.186	.4171	563.6	.5442-03
95	.67.500	.39500	786.00	.3584-01	.4327-01	.4825-01	60.92	2.232	.4177	564.3	.5498-03
95	.67.500	.40000	787.00	.3664-01	.4423-01	.4935-01	60.87	2.253	.4182	564.3	.5498-03
95	.67.500	.40500	788.00	.3701-01	.4469-01	.4986-01	60.87	2.291	.4128	564.3	.5498-03
95	.67.500	.41000	789.00	.3728-01	.4493-01	.5007-01	60.84	2.369	.4203	567.1	.5806-03
95	.67.500	.41500	790.00	.3906-01	.4720-01	.5270-01	60.65	1.848	.4163	561.8	.4493-03
95	.67.500	.42000	791.00	.3026-01	.3652-01	.4073-01	61.07	2.192	.4185	564.7	.5353-03
95	.67.500	.42500	792.00	.3603-01	.4351-01	.4855-01	60.84	2.035	.4118	555.7	.4902-03
95	.67.500	.43000	793.00	.3306-01	.3983-01	.4438-01	61.56	2.749	.4015	541.7	.6484-03
95	.67.500	.43500	794.00	.4386-01	.5266-01	.5853-01	62.68	2.379	.4040	545.1	.5639-03
95	.78.000	.29000	795.00	.3811-01	.4580-01	.5093-01	62.41	2.460	.4085	551.2	.5885-03
95	.78.000	.30000	796.00	.3973-01	.4781-01	.5323-01	61.92	2.460	.4105	553.9	.5820-03
95	.78.000	.31000	797.00	.3927-01	.4729-01	.5267-01	61.71	2.423			



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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
95	78.000	32000	798.00	.3944-01	.4752-01	.5294-01	61.58	2.429	.4117	555.5	.5848-03
95	78.000	32500	799.00	.3827-01	.4611-01	.5138-01	61.52	2.354	.4122	556.2	.5679-03
95	78.000	33000	800.00	.3872-01	.4666-01	.5200-01	61.47	2.380	.4126	556.8	.5742-03
95	78.000	33500	801.00	.3870-01	.4665-01	.5199-01	61.41	2.376	.4133	557.6	.5740-03
95	78.000	34000	802.00	.3731-01	.4498-01	.5013-01	61.39	2.291	.4134	557.8	.5535-03
95	78.000	34500	803.00	.3767-01	.4542-01	.5062-01	61.37	2.312	.4136	558.0	.5589-03
95	78.000	35000	804.00	.3985-01	.4804-01	.5355-01	61.34	2.444	.4138	558.4	.5912-03
95	78.000	35500	805.00	.3848-01	.4639-01	.5170-01	61.37	2.361	.4137	558.1	.5708-03
95	78.000	36000	806.00	.3876-01	.4674-01	.5210-01	61.31	2.376	.4141	558.8	.5751-03
95	78.000	36500	807.00	.4010-01	.4835-01	.5390-01	61.31	2.458	.4142	558.8	.5950-03
95	78.000	37000	808.00	.4045-01	.4878-01	.5438-01	61.26	2.478	.4146	559.4	.6003-03
95	78.000	37500	809.00	.3967-01	.4784-01	.5334-01	61.26	2.430	.4147	559.5	.5887-03
95	78.000	38000	810.00	.3778-01	.4556-01	.5080-01	61.25	2.314	.4148	559.6	.5607-03
95	78.000	38500	811.00	.3548-01	.4279-01	.4771-01	61.23	2.173	.4149	559.8	.5266-03
95	78.000	39000	812.00	.3382-01	.4079-01	.4549-01	61.19	2.069	.4153	560.4	.5019-03
95	78.000	39500	813.00	.4835	.5809	.6488	59.10	28.40	.4218	566.7	.7050-02
93	90.000	40000-01	985.00	.4716	.5706	.6375	59.90	27.78	.4237	569.2	.6923-02
93	90.000	40500-01	986.00	.4002	.4844	.5414	58.81	23.54	.4246	569.3	.5878-02
93	90.000	41000-01	987.00	.3883	.4700	.5253	58.77	22.82	.4249	560.8	.5702-02
93	90.000	41500-01	988.00	.5045	.6107	.6825	58.76	29.64	.4251	561.0	.7405-02
93	90.000	42000-01	989.00	.2657	.3216	.3594	58.82	15.63	.4255	560.2	.3502-02
93	90.000	42500-01	990.00	.1327	.1606	.1795	58.76	7.796	.4250	560.9	.1948-02
95	90.000	43000	991.00	.4408-01	.5308-01	.5912-01	61.72	2.721	.4103	553.7	.5533-03
95	90.000	43500	814.00	.3718-01	.4474-01	.4981-01	61.95	2.303	.4083	550.9	.5507-03
95	90.000	44000	815.00	.2881-01	.3460-01	.3847-01	62.56	1.802	.4026	543.2	.4260-03
95	90.000	27000	816.00	.4167-01	.5001-01	.5558-01	62.74	2.614	.4009	540.9	.6159-03
95	90.000	29000	817.00	.3981-01	.4785-01	.5322-01	62.36	2.483	.4045	545.8	.5891-03
95	90.000	30000	818.00	.3663-01	.4408-01	.4907-01	61.95	2.269	.4083	550.9	.5426-03
95	90.000	31000	819.00	.4080-01	.4913-01	.5471-01	61.76	2.520	.4100	553.2	.6047-03
95	90.000	32000	820.00	.4053-01	.4882-01	.5438-01	61.63	2.490	.4112	554.8	.6009-03
95	90.000	32500	821.00	.4078-01	.4914-01	.5474-01	61.57	2.511	.4118	555.6	.6047-03
95	90.000	33000	822.00	.4031-01	.4857-01	.5411-01	61.55	2.410	.4120	555.9	.5977-03
95	90.000	33500	823.00	.3918-01	.4721-01	.5260-01	61.53	2.447	.4121	556.1	.5809-03
95	90.000	34000	824.00	.3981-01	.4799-01	.5347-01	61.46	2.447	.4128	556.9	.5905-03
95	90.000	34500	825.00	.5771-01	.6956-01	.7751-01	61.47	3.547	.4127	556.9	.6560-03
95	90.000	35000	826.00	.1087	.1316	.1460	61.44	6.678	.4130	557.2	.1612-02
94	90.000	36000	828.00	.6431-01	.7784-01	.8700-01	60.76	3.908	.4246	579.1	.9638-03
94	90.000	36500	829.00	.5251-01	.6357-01	.7105-01	60.75	3.190	.4250	579.3	.7871-03
94	90.000	37000	830.00	.5050-01	.6114-01	.6833-01	60.74	3.068	.4250	579.3	.7570-03
94	90.000	37500	831.00	.5030-01	.6089-01	.6806-01	60.71	3.054	.4253	579.7	.7539-03
94	90.000	38000	832.00	.4972-01	.6019-01	.6728-01	60.71	3.018	.4254	579.8	.7452-03
94	90.000	38500	833.00	.4658-01	.5640-01	.6305-01	60.67	2.826	.4258	580.3	.6983-03
94	90.000	40000	834.00	.4223-01	.5231-01	.5847-01	60.68	2.622	.4256	580.1	.6477-03

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RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	EXT TANK OOT BTU/ FT2SEC	MM/HT	TM DEG. R	STN NO R=0.9
94	30.000	.50000	835.00	.4404-01	.5318-01	.5934-01	61.50	2.708	.4181	569.9	.6397-03
94	90.000	.60000	836.00	.3238-01	.3926-01	.4393-01	60.29	1.952	.4292	583.0	.4860-03
94	90.000	.70000	837.00	.4119-01	.4982-01	.5565-01	60.97	2.511	.4229	576.5	.6169-03
94	90.000	.80000	838.00	.3976-01	.4821-01	.5394-01	60.25	2.396	.4295	585.5	.5958-03
94	90.000	.90000	839.00	.4797-01	.5796-01	.6470-01	61.30	2.940	.4199	572.4	.7179-03
94	112.50	.20000	840.00	.3832-01	.4632-01	.5173-01	61.14	2.343	.4214	574.4	.5737-03
94	112.50	.25000	841.00	.3034-01	.3652-01	.4066-01	62.45	1.894	.4094	558.0	.4525-03
94	112.50	.27000	842.00	.8969-02	.1078-01	.1199-01	63.04	.5654	.4040	550.7	.1336-03
94	112.50	.30000	843.00	.3980-01	.4804-01	.5358-01	61.67	2.455	.4166	567.8	.5951-03
94	112.50	.33000	844.00	.3789-01	.4584-01	.5121-01	60.94	2.309	.4233	576.9	.5576-03
94	112.50	.35000	845.00	.3675-01	.4449-01	.4972-01	60.77	2.234	.4248	579.0	.5508-03
94	112.50	.37000	846.00	.3611-01	.4371-01	.4886-01	60.75	2.194	.4250	579.3	.5412-03
94	112.50	.40000	847.00	.3610-01	.4371-01	.4886-01	60.70	2.191	.4255	579.9	.5412-03
94	112.50	.45000	848.00	.3428-01	.4149-01	.4637-01	60.79	2.084	.4246	578.7	.5138-03
94	112.50	.50000	849.00	.3719-01	.4484-01	.4998-01	61.66	2.543	.4167	568.0	.6167-03
94	112.50	.55000	850.00	.4125-01	.4979-01	.5553-01	61.98	2.305	.4137	563.9	.5555-03
94	112.50	.60000	851.00	.4593-01	.5564-01	.6222-01	60.54	2.781	.4269	581.9	.6889-03
94	112.50	.65000	852.00	.4225-01	.5122-01	.5731-01	60.31	2.548	.4290	584.7	.6341-03
94	112.50	.70000	853.00	.5734-01	.6933-01	.7742-01	61.12	3.505	.4216	574.6	.8586-03
94	112.50	.75000	854.00	.6419-01	.7743-01	.8633-01	61.82	3.968	.4152	565.9	.9592-03
94	112.50	.80000	855.00	.6009-01	.7278-01	.8138-01	60.95	3.638	.4268	581.7	.9010-03
94	112.50	.85000	856.00	.4935-01	.5964-01	.6658-01	61.24	3.022	.4205	573.2	.7385-03
94	125.43	.84000	857.00	.5202-01	.6293-01	.7031-01	60.92	3.169	.4234	577.1	.7792-03
94	125.40	.85000	858.00	.4909-01	.5941-01	.6639-01	60.83	2.985	.4243	578.3	.7356-03
94	125.40	.86000	859.00	.3680-01	.4455-01	.4980-01	60.73	2.235	.4252	579.5	.5516-03
94	125.40	.87000	860.00	.3586-01	.4353-01	.4866-01	60.73	2.184	.4252	579.5	.5390-03
94	125.40	.88000	861.00	.3252-01	.3936-01	.4399-01	60.76	1.976	.4249	579.2	.4873-03
94	125.40	.89000	862.00	.3540-01	.4406-01	.4923-01	60.82	2.214	.4243	578.4	.5455-03
94	125.40	.90000	863.00	.4577-01	.5534-01	.6180-01	61.11	2.797	.4217	574.8	.7353-03
94	125.40	.91000	864.00	.3872-01	.4695-01	.5253-01	60.25	2.333	.4296	585.6	.5811-03
94	125.40	.92000	865.00	.5619-01	.6800-01	.7597-01	60.87	3.421	.4238	577.7	.6420-03
94	129.30	.80000	866.00	.3578-01	.4329-01	.4837-01	60.92	2.180	.4235	577.2	.5351-03
94	129.30	.81000	867.00	.3734-01	.4519-01	.5050-01	60.83	2.271	.4243	578.3	.5595-03
94	129.30	.82000	868.00	.3467-01	.4194-01	.4686-01	60.93	2.112	.4233	577.0	.5194-03
94	129.30	.83000	869.00	.4329-01	.5237-01	.5849-01	60.99	2.640	.4228	576.3	.6464-03
94	135.00	.40000	870.00	.5122	.6194	.6918	61.06	31.27	.4222	575.4	.7670-02
94	135.00	.50000	871.00	.4788	.5796	.6477	60.77	29.10	.4248	579.0	.7176-02
94	135.00	.60000	872.00	.3900	.4723	.5280	60.63	23.65	.4261	580.7	.5847-02
94	135.00	.70000	873.00	.3774	.4571	.5110	60.62	22.88	.4262	580.9	.5659-02
94	135.00	.80000	874.00	.4404	.5332	.5961	60.66	26.71	.4258	580.4	.6602-02
94	135.00	.90000	875.00	.2434	.2947	.3295	60.69	14.78	.4255	580.0	.3549-02
94	135.00	.15000	876.00	.12.4	.1591	.1778	60.73	7.979	.4252	579.5	.1969-02
94	135.00	.20000	877.00	.6655-01	.8054-01	.8999-01	60.85	4.050	.4240	578.0	.9972-03

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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TM DEG. R	STN NO R=0.9
94	135.00	35000	878.00	3952-01	4781-01	5342-01	60.94	2.408	4233	576.9	5921-03
94	135.00	40000	879.00	3721-01	4503-01	5032-01	60.84	2.264	4242	578.1	5576-03
94	135.00	50000	880.00	8725-01	1052	62.02	60.84	2.264	4133	563.4	1303-02
94	135.00	55000	881.00	8520-01	1026	62.40	62.40	5.317	4098	558.6	1271-02
94	135.00	60000	882.00	7479-01	9042-01	61.15	61.15	4.573	4213	574.3	1120-02
94	135.00	65000	883.00	6790-01	8213-01	60.99	60.99	4.142	4228	576.2	1017-02
94	135.00	70000	884.00	5233-01	6316-01	61.63	61.63	3.225	4169	568.3	7824-03
94	135.00	75000	885.00	4205-01	5073-01	62.09	62.09	2.614	4127	562.5	6266-03
94	135.00	80000	886.00	4295-01	5194-01	61.07	61.07	2.623	4220	572.2	6432-03
94	135.00	84000	887.00	7158-01	8655-01	61.10	61.10	4.374	4218	574.9	1072-02
94	135.00	85000	888.00	8391-01	1015	61.06	61.06	5.123	4221	575.4	1256-02
94	135.00	86000	889.00	4161-01	5033-01	60.97	60.97	2.537	4230	576.5	6232-03
94	135.00	87000	890.00	4782-01	5786-01	60.66	60.66	2.910	4240	577.9	7165-03
94	135.00	88000	891.00	3697-01	4473-01	60.88	60.88	2.251	4238	577.6	5539-03
94	135.00	89000	892.00	3820-01	4620-01	60.97	60.97	2.329	4205	576.6	5721-03
94	135.00	90000	893.00	5211-01	6398-01	61.24	61.24	3.191	4231	573.1	7800-03
94	135.00	91000	894.00	4731-01	5710-01	61.67	61.67	2.918	4166	567.8	7073-03
94	135.00	92000	895.00	8300-01	1004	60.96	60.96	5.050	4231	576.7	1243-02
94	135.00	93000	896.00	2520-01	3053-01	60.52	60.52	1.525	4271	582.1	3779-03
94	135.00	94000	897.00	6872-01	8312-01	60.97	60.97	4.190	4230	576.5	1029-02
94	142.30	93500	898.00	6176-01	7466-01	61.15	61.15	3.776	4213	574.3	9246-03
94	142.30	94000	899.00	5511-01	6779-01	61.31	61.31	4.658	4198	572.3	8336-03
94	142.30	95000	900.00	7499-01	9037-01	62.11	62.11	4.808	4125	562.2	1120-02
94	142.30	96000	901.00	7827-01	9454-01	61.42	61.42	4.706	4146	565.1	1171-02
94	142.30	97000	902.00	7605-01	9172-01	61.88	61.88	10.16	4188	570.9	1136-02
94	154.98	94500	914.00	1758	2135	57.78	57.78	21.02	4343	573.2	2590-02
93	157.50	70000-01	918.00	3575	4237	58.80	58.80	20.75	4247	560.5	5250-02
93	157.50	80000-01	919.00	3527	4268	58.83	58.83	14.66	4244	560.1	5179-02
93	157.50	10000-00	920.00	2489	3011	58.90	58.90	14.66	4237	559.2	3654-02
93	157.50	20000	922.00	6680-01	8085-01	58.80	58.80	3.928	4246	560.4	6809-03
93	157.50	42000	923.00	6761-01	8176-01	59.05	59.05	3.992	4223	567.3	9922-03
93	157.50	85000	926.00	4501-01	5463-01	57.97	57.97	2.609	4325	570.8	5626-03
93	157.50	85000	927.00	4119-01	5002-01	57.88	57.88	2.384	4334	572.0	8066-03
93	157.50	87000	928.00	4380-01	5319-01	57.83	57.83	2.533	4339	572.6	8450-03
93	157.50	88000	929.00	6287-01	7636-01	57.80	57.80	3.634	4341	573.0	9260-03
93	157.50	89000	930.00	8253-01	1002	57.92	57.92	4.781	4330	571.4	1215-02
93	157.50	90000	931.00	1042	1264	58.29	58.29	6.077	4295	566.8	1533-02
93	157.50	91000	932.00	1039	1258	58.74	58.74	6.103	4252	561.2	1526-02
93	157.50	92000	933.00	1336	1682	58.14	58.14	8.059	4310	568.8	2040-02
93	163.12	45000	934.00	6726-01	8135-01	59.02	59.02	3.970	4226	567.7	5871-03
93	163.12	42000	935.00	7372-01	8917-01	59.00	59.00	4.349	4228	569.0	1082-02
93	163.12	43000	937.00	1439	1741	58.92	58.92	8.479	4235	559.0	2113-02
93	153.12	44000	938.00	1451	1755	58.94	58.94	8.550	4233	558.7	2129-02

AMES 3.5-211 1H48

DATE 05 MAR 76

ARC3.5-211(1H48)OT /NIPPLE/P/TRIP											EXT TANK	
RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F <sup>2</sup> SEC	QDOT BTU/ F <sup>2</sup> SEC	HM/HT	TH DEG. R	STN NO R=0.9	
93	163.12	44500	939.00	.1579	.1910	.2133	59.06	9.328	.4222	557.2	2317-02	
93	163.12	45000	940.00	.1603	.1938	.2164	59.11	9.474	.4217	558.5	2351-02	
93	163.12	50000	941.00	.6231-01	.7537-01	.8419-01	59.66	5.757	.4169	549.7	1414-02	
93	163.12	60000	942.00	.5241-01	.6338-01	.7079-01	59.01	3.096	.4227	557.9	9146-03	
93	163.12	70000	943.00	.4091-01	.4962-01	.5552-01	58.25	2.383	.4221	557.0	7631-03	
93	163.12	80000	944.00	.3964-01	.4792-01	.5351-01	59.15	2.344	.4299	567.4	6018-03	
93	168.00	35000	945.00	.3899-01	.4714-01	.5264-01	59.15	2.307	.4214	556.1	5815-03	
93	168.00	37000	947.00	.3784-01	.4574-01	.5107-01	59.20	2.240	.4209	556.0	5721-03	
93	168.00	39000	948.00	.3626-01	.4425-01	.5165-01	59.12	2.262	.4216	555.5	5551-03	
93	168.00	37500	950.00	.3034-01	.3667-01	.4094-01	59.23	1.797	.4206	556.4	5613-03	
93	168.00	39000	951.00	.3622-01	.4380-01	.4891-01	59.10	2.141	.4218	556.7	5315-03	
93	168.00	39500	952.00	.3553-01	.4296-01	.4798-01	59.08	2.099	.4223	556.9	5213-03	
93	168.00	40000	953.00	.5303-01	.6114-01	.7163-01	59.05	3.132	.4223	557.3	7783-03	
93	168.00	40500	954.00	.6714-01	.8120-01	.9070-01	59.02	3.963	.4225	557.7	9854-03	
93	168.00	41000	955.00	.5626-01	.6802-01	.7596-01	59.12	3.326	.4216	556.4	8254-03	
93	168.00	41500	956.00	.7115-01	.8506-01	.9613-01	59.00	4.198	.4228	558.0	1644-02	
93	168.00	42000	957.00	.9695-01	.1173	.1310	58.97	5.717	.4231	558.4	1423-02	
93	168.00	42500	958.00	.1026	.1241	.1386	59.02	6.055	.4226	557.7	1506-02	
93	168.00	43000	959.00	.2499	.3024	.3378	58.91	14.72	.4236	559.1	3659-02	
93	168.00	43000	960.00	.2470	.2988	.3338	58.93	14.55	.4234	558.8	3625-02	
93	168.00	44500	961.00	.1544	.1868	.2086	59.03	9.116	.4225	557.6	2267-02	
93	168.00	45000	962.00	.1117	.1331	.1509	59.08	6.601	.4221	557.0	1640-02	
93	168.00	45000	963.00	.1101	.1331	.1486	59.15	6.511	.4213	555.0	1615-02	
93	168.00	46000	964.00	.1228	.1485	.1658	59.20	7.272	.4209	555.5	1802-02	
93	168.00	47000	965.00	.1234	.1559	.1740	59.26	7.644	.4203	554.8	1892-02	
93	168.00	48000	966.00	.1224	.1479	.1650	59.34	7.262	.4196	553.7	1794-02	
93	168.00	49000	967.00	.7251-01	.8756-01	.9770-01	59.48	4.313	.4182	552.0	1063-02	
93	168.00	49000	968.00	.4856-01	.5991-01	.6594-01	58.13	2.823	.4310	568.8	7145-03	
93	168.00	49000	969.00	.4873-01	.5913-01	.6620-01	58.05	2.829	.4317	559.8	7172-03	
93	168.00	85000	970.00	.5811-01	.7054-01	.7898-01	58.00	3.371	.4322	570.5	8555-03	
93	168.00	89000	971.00	.7574-01	.9191-01	.1029	58.06	4.397	.4317	569.8	1115-02	
93	168.00	89000	972.00	.1025	.1243	.1391	58.14	5.957	.4309	568.7	1508-02	
93	168.00	89000	973.00	.1199	.1453	.1625	58.47	7.013	.4278	564.6	1763-02	
93	168.00	90000	974.00	.1225	.1482	.1655	58.92	7.216	.4235	558.9	1758-02	
93	168.00	92500	975.00	.1925	.2333	.2610	58.40	11.24	.4285	565.5	2330-02	
93	168.00	95000	976.00	.6979-01	.8476-01	.9495-01	57.82	11.24	.4250	572.7	2330-02	
93	180.00	20000-01	982.00	.1590	.1925	.2152	58.67	9.328	.4259	562.1	2335-02	
93	180.00	25000-01	983.00	.3784	.4579	.5116	58.89	22.29	.4238	559.3	5556-02	
93	180.00	30000-01	984.00	.5784	.6997	.7816	58.98	34.11	.4230	558.2	8490-02	
93	180.00	40000-01	600.00	.5034	.6023	.6679	65.20	32.82	.4209	537.6	7498-02	
97	180.00	50000-01	601.00	.5477	.6478	.6076	65.06	29.77	.3923	539.5	6820-02	
97	180.00	60000-01	602.00	.3899	.4668	.5179	64.99	25.34	.3929	540.4	5811-02	

DATE 05 MAR 78

AVES 3.5-211 1448

ARC3.5-2111144810T /NIPPLE/P/TRIP

EXT TANK

PAGE 193

(RNSF143)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
97	180.00	.70000-01	603.00	.3789	.4536	.5032	64.99	24.62	.3929	540.4	.5547-02
97	180.00	.80000-01	604.00	.4348	.5205	.5774	65.03	28.27	.3925	539.9	.6480-02
97	180.00	.10000-00	605.00	.2278	.2728	.3026	65.02	14.81	.3926	540.0	.3395-02
97	180.00	.15000	606.00	.1261	.1509	.1674	65.05	8.201	.3924	539.6	.1879-02
97	180.00	.20000	607.00	.6471-01	.7747-01	.8595-01	64.98	4.205	.3930	540.5	.9545-03
97	180.00	.21000	608.00	.5163-01	.6182-01	.6858-01	64.95	3.353	.3932	540.8	.7655-03
97	180.00	.30000	610.00	.3853-01	.4611-01	.5114-01	65.13	2.510	.3916	539.5	.5741-03
97	180.00	.35000	611.00	.3553-01	.4265-01	.4731-01	65.07	2.319	.3922	535.3	.5310-03
97	180.00	.36000	612.00	.3322-01	.3977-01	.4411-01	65.02	2.160	.3926	539.9	.4951-03
97	180.00	.37000	613.00	.3456-01	.4137-01	.4590-01	64.96	2.245	.3931	540.7	.5150-03
97	180.00	.37500	614.00	.3475-01	.4161-01	.4617-01	64.95	2.257	.3932	540.8	.5180-03
97	180.00	.38000	615.00	.3402-01	.4074-01	.4520-01	64.94	2.209	.3933	540.9	.5071-03
97	180.00	.38500	616.00	.3340-01	.3999-01	.4437-01	64.93	2.169	.3934	541.0	.4978-03
97	180.00	.39000	617.00	.4510-01	.5401-01	.5994-01	64.87	2.926	.3940	541.8	.6724-03
97	180.00	.39500	618.00	.5702-01	.6930-01	.7579-01	64.84	3.697	.3942	542.2	.6502-03
97	180.00	.40000	619.00	.5764-01	.6904-01	.7661-01	64.83	3.737	.3943	542.3	.5554-03
97	180.00	.40500	620.00	.6040-01	.7235-01	.8029-01	64.81	3.915	.3944	542.5	.9025-03
97	180.00	.41000	621.00	.8227-01	.9954-01	.1094	64.80	5.201	.3946	542.7	.1277-02
97	180.00	.41500	622.00	.1267	.1518	.1685	64.72	8.201	.3953	543.6	.1690-02
97	180.00	.42000	624.00	.1845	.2210	.2453	64.73	11.94	.3952	543.5	.2751-02
97	180.00	.43000	625.00	.1921	.2338	.2595	64.69	12.62	.3956	544.1	.2911-02
97	180.00	.44000	626.00	.2959	.3558	.3949	64.72	19.22	.3952	543.7	.4428-02
97	180.00	.44500	627.00	.2454	.3138	.3504	64.75	22.36	.3952	543.6	.4827-02
97	180.00	.45000	628.00	.3237	.3878	.4304	64.75	20.96	.3951	543.3	.3330-02
97	180.00	.45500	629.00	.2636	.3157	.3504	64.75	17.07	.3950	543.2	.3557-02
97	180.00	.46000	630.00	.2030	.2456	.2726	64.73	13.27	.3952	543.5	.1556-02
97	180.00	.47000	631.00	.1046	.1259	.1463	63.09	6.593	.4100	553.9	.9294-03
97	180.00	.48000	632.00	.5551-01	.5553-01	.7395-01	64.71	3.599	.3954	543.7	.4227-03
97	180.00	.49000	633.00	.2844-01	.3395-01	.3769-01	64.77	1.835	.3949	543.1	.5519-03
97	180.00	.50000	634.00	.2351-01	.2827-01	.3137-01	64.90	1.532	.3937	541.5	.1592-02
97	180.00	.55000	635.00	.1135	.1359	.1508	64.98	7.375	.3929	540.4	.8234-03
97	180.00	.60000	636.00	.6211-01	.7443-01	.8262-01	64.69	4.018	.3955	544.0	.8493-03
97	180.00	.65000	637.00	.6354-01	.7554-01	.8385-01	64.64	4.074	.3951	544.7	.6947-03
97	180.00	.70000	638.00	.5999-01	.7189-01	.7979-01	64.70	3.881	.3925	543.9	.9115-03
97	180.00	.75000	639.00	.6107-01	.7314-01	.8116-01	64.87	3.962	.3933	541.8	.2222-03
97	180.00	.80000	640.00	.4351-01	.5827-01	.6470-01	64.55	3.139	.3958	545.7	.6220-03
97	180.00	.85000	641.00	.5907-01	.6603-01	.7352-01	64.47	4.000	.3976	545.8	.9271-03
97	180.00	.90000	642.00	.6312-01	.7450-01	.8274-01	64.40	4.393	.3982	547.7	.1518-02
97	180.00	.95000	643.00	.6324-01	.8194-01	.9090-01	64.38	4.393	.3984	547.9	.1152-02
97	180.00	.99000	644.00	.7719-01	.9257-01	.1028	64.40	5.087	.3982	547.6	.1247-02
97	180.00	.99300	645.00	.7930-01	.9459-01	.1050	64.48	5.087	.3974	545.5	.1247-02
97	180.00	.99500	646.00	.8350-01	.1001	.1111	64.75	5.412	.3950	543.3	.1247-02
97	180.00	.99600	648.00	.3116	.3732	.4142	64.80	20.19	.3946	542.7	.1247-02

AMES 3.5-211 1448

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H2/HT	TM DEG. R	STN NO R=0.9
97	180.00	.95000	649.00	.2513-01	.3011-01	.3343-01	64.65	1.624	.3959	544.5	3748-03
97	191.25	.35000	650.00	.3283-01	.3829-01	.4358-01	65.06	2.136	.3922	539.4	4892-03
97	191.25	.36000	651.00	.3219-01	.3852-01	.4273-01	65.09	2.095	.3920	539.1	4796-03
97	191.25	.37000	652.00	.3656-01	.4376-01	.4853-01	65.10	2.380	.3919	538.9	5448-03
97	191.25	.37500	653.00	.4713-01	.5640-01	.6255-01	65.08	3.067	.3921	539.2	7022-03
97	191.25	.38000	654.00	.4563-01	.5461-01	.6056-01	65.13	2.972	.3916	538.6	6798-03
97	191.25	.38500	655.00	.5054-01	.6048-01	.6708-01	65.10	3.290	.3919	538.9	7530-03
97	191.25	.39000	656.00	.6189-01	.7408-01	.8217-01	65.04	4.025	.3924	539.7	9223-03
97	191.25	.39500	657.00	.5687-01	.6806-01	.7550-01	65.06	3.700	.3922	539.4	6474-03
97	191.25	.40000	658.00	.5450-01	.6524-01	.7238-01	64.99	3.542	.3928	540.3	8122-03
97	191.25	.40500	659.00	.5486-01	.6567-01	.7285-01	65.01	3.567	.3927	540.0	2176-03
97	191.25	.41000	661.00	.7323-01	.8774-01	.9733-01	65.00	4.764	.3928	540.2	1032-02
97	191.25	.42000	662.00	.1202	.1439	.1597	64.97	7.810	.3930	540.5	1792-02
97	191.25	.42500	663.00	.1504	.1801	.1908	64.98	9.774	.3929	540.4	2272-02
97	191.25	.43000	664.00	.2273	.2722	.3019	64.96	14.77	.3932	540.7	3288-02
97	191.25	.44000	665.00	.2518	.3014	.3344	64.97	16.36	.3930	540.7	3722-02
97	191.25	.45000	665.00	.1236	.1480	.1642	64.95	8.027	.3933	540.9	1942-02
97	191.25	.46000	667.00	.123	.1705	.1893	64.95	9.202	.3937	544.2	2122-02
97	191.25	.47000	668.00	.1315	.1574	.1746	64.95	8.538	.3932	540.8	1559-02
97	191.25	.48000	669.00	.1376	.1648	.1828	64.94	8.937	.3933	540.9	2051-02
97	191.25	.49000	670.00	.1349	.1615	.1792	64.98	8.767	.3930	540.5	2011-02
97	191.25	.50000	671.00	.1225	.1468	.1629	65.00	7.970	.3928	540.2	1628-02
97	191.25	.51000	672.00	.1284	.1537	.1705	65.08	8.359	.3920	539.2	1914-02
97	191.25	.52000	673.00	.6014-01	.7200-01	.7989-01	64.94	3.905	.3933	540.9	6554-03
97	191.25	.53000	674.00	.4530-01	.5424-01	.6018-01	64.95	2.942	.3932	540.8	5552-03
97	191.25	.54000	675.00	.5748-01	.6958-01	.7777-01	57.92	3.329	.4251	553.6	9375-03
97	191.25	.55000	677.00	.5061-01	.7340-01	.8205-01	57.83	3.505	.4260	554.8	8855-03
97	191.25	.56000	678.00	.6075-01	.7357-01	.8225-01	57.83	3.513	.4260	554.7	8855-03
97	191.25	.57000	679.00	.6384-01	.7731-01	.8644-01	57.80	3.690	.4262	555.1	9335-03
97	191.25	.58000	680.00	.7119-01	.8516-01	.9629-01	57.98	4.128	.4246	553.9	1037-02
97	191.25	.59000	681.00	.8505-01	.1028	.1149	58.24	4.953	.4220	549.5	1238-02
97	191.25	.60000	682.00	.9548-01	.1165	.1300	58.60	5.653	.4186	545.1	1473-02
97	191.25	.61000	683.00	.2653	.3223	.3602	58.01	15.45	.4242	552.4	3830-02
97	191.25	.62000	684.00	.3790-01	.4597-01	.5145-01	57.35	2.173	.4236	554.3	5523-03
97	191.25	.63000	685.00	.2932-01	.3550-01	.3959-01	57.85	1.697	.4237	554.3	7273-03
97	191.25	.64000	686.00	.2853-01	.3454-01	.3850-01	57.91	1.652	.4253	553.8	4733-03
97	191.25	.65000	687.00	.2854-01	.3457-01	.3874-01	57.96	1.660	.4247	553.1	4213-03
97	191.25	.66000	688.00	.2892-01	.3500-01	.3911-01	58.04	1.679	.4240	552.2	9155-03
97	191.25	.67000	689.00	.6283-01	.7605-01	.8493-01	58.25	3.664	.4219	549.5	9155-03
97	191.25	.68000	690.00	.7880-01	.9529-01	.1064	58.24	4.590	.4220	549.5	1147-02
97	191.25	.69000	691.00	.2793	.3371	.3760	58.83	16.43	.4164	542.2	4039-02
97	191.25	.70000	692.00	.7100-01	.8578-01	.9574-01	58.49	4.153	.4195	546.5	1033-02
97	191.25	.71000	693.00	.6680-01	.8310-01	.9273-01	58.59	4.031	.4187	545.2	1001-02

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OF POOR QUALITY.

DATE 05 MAR 76

AMES 3.5-211 1H48

ARC3.5-211:1H48:OT /NIPPLE/P/TRIP

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	QREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HA/HT	TH DEG. R	STN NO R=0.9
95	197.00	.80200	694.00	.4493-01	.5434-01	.6070-01	58.19	2.615	.4225	555.2	5542-03
95	197.00	.87000	695.00	.5730-01	.6935-01	.7749-01	58.00	3.323	.4244	552.6	5547-03
95	197.00	.92600	696.00	.2447	.2960	.3307	58.10	14.22	.4234	551.4	5553-02
95	209.80	.15000-01	697.00	.8475-01	.1030	.1154	56.89	4.821	.4351	555.5	5523-02
95	209.80	.30000-01	698.00	.5316	.6443	.7207	57.58	30.61	.4284	557.9	5554-02
95	209.80	.50000-01	699.00	.4685	.5577	.6350	57.61	26.99	.4278	557.1	5570-02
95	209.80	.70000-01	700.00	.4574	.5542	.6198	57.64	25.35	.4281	557.1	5570-02
95	209.80	.10000+00	701.00	.3395	.4112	.4597	57.84	19.64	.4259	554.5	5549-02
95	209.80	.15000	702.00	.1717	.2079	.2323	57.94	9.950	.4249	553.3	5570-02
95	209.80	.20000	703.00	.6835-01	.8280-01	.9259-01	57.72	3.945	.4270	555.1	5555-03
95	209.80	.30000	704.00	.4511-01	.5461-01	.5793	57.90	2.611	.4254	553.9	5573-03
95	209.80	.35000	705.00	.5000-01	.6051-01	.6761-01	58.03	2.922	.4241	553.2	5573-03
95	209.80	.37500	706.00	.1024	.1238	.1392	58.31	5.970	.4214	548.7	5570-02
95	209.80	.50000	707.00	.1353	.1632	.1820	58.93	7.973	.4154	541.0	5570-02
95	209.80	.60000	708.00	.5933-01	.7235-01	.8071-01	58.72	3.519	.4175	543.6	5571-03
95	209.80	.70000	709.00	.4954-01	.5980-01	.6570-01	59.60	2.913	.4167	542.6	5571-03
95	209.80	.80000	710.00	.3193-01	.3959-01	.4309-01	59.37	1.864	.4209	548.0	5573-03
95	209.80	.87000	711.00	.4608-01	.5568-01	.6217-01	58.32	2.635	.4212	546.6	5573-03
95	209.80	.92600	712.00	.1354	.1649	.1841	59.29	7.950	.4215	548.9	5573-03
95	217.70	.15000-01	713.00	.1285	.1552	.1750	55.78	7.294	.4361	557.0	5570-02
95	217.70	.30000-01	714.00	.4982	.6039	.6753	57.62	28.70	.4281	557.7	5570-02
95	217.70	.50000-01	715.00	.4103	.4976	.5557	57.45	23.59	.4255	555.7	5570-02
95	217.70	.70000-01	716.00	.4956	.5933	.6578	57.71	23.02	.4241	555.2	5570-02
95	217.70	.10000+00	717.00	.2342	.2833	.3169	57.89	13.55	.4247	555.7	5570-02
95	217.70	.15000	718.00	.1870	.2264	.2530	57.95	10.84	.4247	555.7	5570-02
95	217.70	.20000	719.00	.6625-01	.8023-01	.8970-01	57.80	3.823	.4249	555.7	5570-02
95	217.70	.30000	720.00	.4344-01	.5259-01	.5877-01	57.95	2.518	.4249	555.7	5570-02
95	217.70	.35000	721.00	.4475-01	.5415-01	.6051-01	59.00	2.595	.4243	555.7	5570-02
95	217.70	.37500	722.00	.4298-01	.5193-01	.5799-01	58.31	2.525	.4247	555.7	5570-02
95	217.70	.50000	723.00	.2987-01	.1072	.1196	59.90	5.223	.4151	549.9	5570-02
95	217.70	.60000	724.00	.6578-01	.7612-01	.8650-01	59.72	3.853	.4175	549.9	5570-02
95	217.70	.70000	725.00	.5706-01	.6699-01	.7694-01	59.75	3.352	.4171	549.9	5570-02
95	217.70	.80000	726.00	.3511-01	.4245-01	.4741-01	59.28	2.015	.4171	549.9	5570-02
95	217.70	.87000	727.00	.6107-01	.7391-01	.8240-01	58.41	3.657	.4171	549.9	5570-02
95	217.70	.92600	728.00	.1223	.1479	.1651	59.31	7.131	.4171	549.9	5570-02

DATE 05 MAR 75

AMES 3.5-211 1H48

ARC3.5-211 1H4810T /NIPPLE/P/TRIP

EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = -5.000 BETA = .0000 RV/L = 5.000

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RQD SLUG/ FT3	VINF FT/SEC	SCALE
98	-5.000	.0000	5.300	4.662	406.7	1362.	333.5	.5345	210.0	.2133-03	3754.	.1750-01
99	-5.000	.0000	5.300	4.672	407.1	1361.	333.3	.5352	209.9	.2140-03	3763.	.1750-01
100	-5.000	.0000	5.300	4.809	406.7	1336.	326.7	.5354	205.7	.2184-03	3725.	.1750-03
101	-5.000	.0000	5.300	4.850	407.1	1329.	325.1	.5360	204.7	.2197-03	3717.	.1750-01
102	-5.000	.0000	5.300	4.869	406.3	1325.	323.9	.5352	204.0	.2202-03	3710.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/H1	Y4 DEG. R	STN NO #-0.9
99	.00000	.3000-02	730.00	.3033	.3646	.4056	64.23	19.48	.4057	.553.4	.4553-02
99	.00000	.1000-01	731.00	.7396-01	.8970-01	.9860-01	64.60	4.771	.4023	.558.8	.110-02
99	.00000	.5000-01	732.00	.4492-01	.5399-01	.5988-01	64.92	2.916	.3955	.557.8	.673-03
99	.00000	.3000-01	734.00	.2033	.2435	.2702	65.45	13.30	.397	.559.2	.573-02
99	.00000	.3000-01	735.00	.2910	.3486	.3868	65.51	9.07	.3942	.557.5	.733-02
99	.00000	.3000-01	737.00	.3156	.3782	.4198	65.33	20.62	.3959	.549.7	.733-02
99	.00000	.3000-01	738.00	.3314	.3973	.4411	65.14	21.62	.3959	.550.8	.493-02
99	.00000	.3000-01	739.00	.3039	.3644	.4046	65.20	19.83	.3973	.552.0	.382-02
99	.00000	.3000-01	740.00	.2707	.3246	.3604	65.24	17.65	.3970	.551.3	.382-02
99	.00000	.3000-01	741.00	.2304	.2804	.3155	65.30	18.95	.3956	.551.0	.382-02
99	.00000	.3000-01	742.00	.1756	.2104	.2336	65.30	11.45	.3952	.551.1	.382-02
99	.00000	.3000-01	743.00	.1326	.1590	.1765	65.08	8.633	.3930	.552.8	.382-02
99	.00000	.3000-01	744.00	.1008	.1208	.1342	65.32	6.997	.3959	.549.6	.382-02
99	.00000	.3000-01	745.00	.6030-01	.7227-01	.8024-01	65.25	3.334	.3955	.550.7	.382-02
99	.00000	.3000-01	745.00	.3757-01	.4505-01	.5003-01	65.10	2.445	.3979	.552.6	.382-02
99	.00000	.3000-01	747.00	.3192-01	.3828-01	.4252-01	65.01	2.075	.3931	.552.7	.382-02
99	.00000	.3000-01	748.00	.2515-01	.3017-01	.3352-01	64.95	1.634	.3930	.551.6	.382-02
99	.00000	.3000-01	749.00	.2223-01	.2666-01	.2961-01	65.09	1.447	.3930	.551.6	.382-02
99	.00000	.3000-01	750.00	.1648-01	.1973-01	.2190-01	65.51	1.073	.3932	.552.5	.382-02
99	.00000	.3000-01	751.00	.2174-01	.2608-01	.2897-01	65.02	1.414	.3935	.553.5	.382-02
99	.00000	.3000-01	752.00	.2354-01	.2833-01	.3154-01	62.55	1.473	.3935	.553.4	.382-02
100	.00000	.3000-01	753.00	.2429-01	.2925-01	.3257-01	62.45	1.517	.4056	.554.7	.382-02
100	.00000	.3000-01	754.00	.2482-01	.2989-01	.3330-01	62.23	1.546	.4056	.554.7	.382-02



AMES 3.5-211 1H+8

DATE 05 MAR 75

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
100	.00000	.60000	755.00	.2277-01	.2747-01	.3063-01	61.79	1.407	.4136	565.0	.3396-03
100	.00000	.70000	756.00	.2306-01	.2782-01	.3102-01	61.81	1.425	.4155	565.7	.3440-03
100	.00000	.80000	757.00	.2356-01	.2844-01	.3173-01	61.58	1.451	.4175	568.5	.3515-03
100	.00000	.90000	758.00	.2328-01	.2805-01	.3126-01	62.13	1.446	.4125	561.7	.3469-03
100	.55.000	.25000	760.00	.2308-01	.2774-01	.3085-01	63.00	1.454	.4045	550.8	.3431-03
100	.55.000	.27000	761.00	.2894-01	.3477-01	.3866-01	63.12	1.826	.4035	549.4	.4301-03
100	.55.000	.30000	762.00	.3067-01	.3691-01	.4109-01	62.58	1.920	.4084	556.1	.4566-03
100	.55.000	.32000	763.00	.3200-01	.3854-01	.4286-01	62.40	1.997	.4100	558.3	.4766-03
100	.55.000	.34000	764.00	.3152-01	.3796-01	.4228-01	62.37	1.993	.4104	558.7	.4759-03
100	.55.000	.36000	765.00	.3125-01	.3764-01	.4192-01	62.33	1.948	.4106	559.1	.4694-03
100	.55.000	.38000	766.00	.3037-01	.3659-01	.4076-01	62.27	1.891	.4107	559.2	.4655-03
100	.55.000	.40000	767.00	.3648-01	.4392-01	.4891-01	62.45	2.278	.4096	557.7	.4525-03
100	.67.500	.25000	768.00	.2503-01	.3008-01	.3346-01	62.98	1.576	.4047	551.1	.5432-03
100	.67.500	.27000	769.00	.3749-01	.4505-01	.5011-01	63.04	2.364	.4042	550.4	.3721-03
100	.67.500	.29000	770.00	.3312-01	.3981-01	.4428-01	62.92	2.094	.4032	551.8	.5574-03
100	.67.500	.30000	772.00	.3459-01	.4162-01	.4633-01	62.61	2.178	.4094	555.7	.4925-03
100	.67.500	.31000	773.00	.3486-01	.4185-01	.4660-01	62.41	2.169	.4099	557.5	.5191-03
100	.67.500	.32000	774.00	.3476-01	.4148-01	.4619-01	62.41	2.150	.4099	558.2	.5175-03
100	.67.500	.32500	775.00	.3445-01	.4125-01	.4594-01	62.42	2.139	.4099	558.1	.5130-03
100	.67.500	.33000	776.00	.3426-01	.4124-01	.4593-01	62.38	2.137	.4102	558.5	.5102-03
100	.67.500	.33500	777.00	.3402-01	.4097-01	.4562-01	62.41	2.123	.4100	558.2	.5101-03
100	.67.500	.34000	778.00	.3365-01	.4052-01	.4513-01	62.42	2.101	.4099	558.1	.5066-03
100	.67.500	.34500	779.00	.3355-01	.4052-01	.4512-01	62.42	2.101	.4099	558.1	.5011-03
100	.67.500	.35000	780.00	.3294-01	.3966-01	.4417-01	62.43	2.057	.4099	558.0	.4905-03
100	.67.500	.35500	781.00	.3330-01	.4003-01	.4465-01	62.42	2.079	.4099	558.1	.4958-03
100	.67.500	.36000	782.00	.3331-01	.4031-01	.4505-01	60.81	2.025	.4246	578.2	.4981-03
100	.67.500	.36500	783.00	.3026-01	.3643-01	.4056-01	62.44	1.889	.4097	557.8	.4505-03
100	.67.500	.37000	784.00	.3309-01	.3983-01	.4436-01	62.44	2.066	.4097	557.9	.4926-03
100	.67.500	.37500	785.00	.3365-01	.4051-01	.4511-01	62.43	2.101	.4097	557.9	.5017-03
100	.67.500	.38000	786.00	.3369-01	.4057-01	.4518-01	62.39	2.102	.4101	558.4	.5010-03
100	.67.500	.39000	788.00	.3263-01	.3930-01	.4233-01	62.37	1.968	.4103	558.7	.4700-03
100	.67.500	.40000	789.00	.2378-01	.2869-01	.3199-01	61.77	1.469	.4110	559.6	.4860-03
100	.67.500	.50000	790.00	.2423-01	.2922-01	.3258-01	61.92	1.500	.4158	566.1	.3546-03
100	.67.500	.60000	791.00	.1725-01	.2069-01	.2308-01	61.79	1.060	.4145	564.4	.3613-03
100	.67.500	.70000	792.00	.1920-01	.2313-01	.2576-01	62.36	1.198	.4157	566.0	.2558-03
100	.67.500	.80000	793.00	.4361-01	.5339-01	.5825-01	63.13	2.753	.4104	558.8	.2860-03
100	.78.000	.27000	794.00	.3644-01	.4379-01	.4871-01	62.99	2.295	.4034	549.2	.6481-03
100	.78.000	.29000	795.00	.3644-01	.4649-01	.5174-01	62.70	2.423	.4073	551.0	.5418-03
100	.78.000	.30000	796.00	.3864-01	.4618-01	.5141-01	62.58	2.402	.4073	554.6	.5750-03
100	.78.000	.31000	797.00	.3837-01	.4618-01	.5141-01	62.58	2.423	.4084	556.0	.5711-03
100	.78.000	.32000	798.00	.3859-01	.4643-01	.5170-01	62.54	2.413	.4088	556.6	.5743-03

DATE 05 MAR 76

ANES 3.5-211 1H48

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(RMBF15)

PUN NUMBER	PMI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
100	78.000	32500	799.00	.3740-01	.4502-01	.5012-01	62.55	2.340	.4087	556.5	.5568-03
100	78.000	33300	800.00	.3757-01	.4521-01	.5034-01	62.55	2.350	.4087	556.5	.5592-03
100	78.000	33500	801.00	.3781-01	.4551-01	.5067-01	62.55	2.365	.4087	556.5	.5629-03
100	78.000	34000	802.00	.3686-01	.4436-01	.4938-01	62.59	2.307	.4083	556.0	.5486-03
100	78.000	34500	803.00	.3688-01	.4438-01	.4940-01	62.59	2.308	.4083	555.9	.5488-03
100	78.000	35000	804.00	.3705-01	.4460-01	.4965-01	62.52	2.317	.4089	556.8	.5516-03
100	78.000	35500	805.00	.3651-01	.4633-01	.5157-01	62.63	2.412	.4080	555.5	.5731-03
100	78.000	36000	806.00	.4212-01	.5068-01	.5642-01	62.60	2.637	.4082	555.8	.6269-03
100	78.000	36500	807.00	.4385-01	.5277-01	.5874-01	62.59	2.745	.4083	555.9	.6527-03
100	78.000	37000	808.00	.4129-01	.4968-01	.5531-01	62.61	2.585	.4082	555.8	.6145-03
100	78.000	37500	809.00	.3831-01	.4611-01	.5133-01	62.57	2.397	.4085	556.2	.5703-03
100	78.000	38000	810.00	.3570-01	.4296-01	.4782-01	62.58	2.234	.4084	556.0	.5313-03
100	78.000	39000	811.00	.3384-01	.4073-01	.4534-01	62.57	2.118	.4084	556.2	.5037-03
100	78.000	40000	812.00	.3422-01	.4118-01	.4585-01	62.54	2.140	.4088	556.6	.5093-03
102	90.000	40000-01	985.00	.4624	.5577	.6217	61.30	28.35	.4147	559.7	.6861-02
102	90.000	50000-01	986.00	.4494	.5424	.6051	61.05	27.43	.4170	562.9	.6673-02
102	90.000	60000-01	987.00	.3912	.4724	.5271	60.90	23.82	.4184	564.7	.5810-02
102	90.000	70000-01	988.00	.3750	.4530	.5056	60.83	22.81	.4191	565.7	.5572-02
102	90.000	80000-01	989.00	.4779	.5774	.6445	60.77	29.04	.4197	566.4	.7102-02
102	90.000	100000-01	990.00	.2630	.3178	.3548	60.73	15.97	.4200	566.9	.3909-02
102	90.000	15000	991.00	.1272	.1538	.1718	60.52	7.700	.4219	569.5	.1892-02
100	90.000	20100	813.00	.4662-01	.5610-01	.6245-01	62.59	2.918	.4083	555.9	.6938-03
100	90.000	21000	814.00	.4168-01	.5014-01	.5580-01	62.72	2.614	.4071	554.3	.6202-03
100	90.000	22000	815.00	.3405-01	.4090-01	.4549-01	63.11	2.149	.4035	549.4	.5061-03
100	90.000	27000	816.00	.4693-01	.5637-01	.6267-01	63.21	2.966	.4027	548.3	.6974-03
100	90.000	29000	817.00	.4305-01	.5174-01	.5755-01	62.97	2.711	.4048	551.2	.6401-03
100	90.000	30000	818.00	.4113-01	.4950-01	.5511-01	62.52	2.571	.4089	556.8	.6122-03
100	90.000	31000	819.00	.4348-01	.5232-01	.5823-01	62.62	2.722	.4081	555.6	.6471-03
100	90.000	32000	820.00	.4172-01	.5020-01	.5589-01	62.58	2.611	.4084	556.0	.6209-03
100	90.000	32500	821.00	.4162-01	.5008-01	.5575-01	62.58	2.604	.4084	556.1	.6194-03
100	90.000	33000	822.00	.4109-01	.4945-01	.5505-01	62.59	2.572	.4083	556.0	.6116-03
100	90.000	33500	823.00	.4101-01	.4935-01	.5494-01	62.59	2.567	.4083	556.0	.6104-03
100	90.000	34000	824.00	.4152-01	.4996-01	.5561-01	62.60	2.599	.4083	555.9	.6179-03
100	90.000	34500	825.00	.4552-01	.5477-01	.6097-01	62.60	2.849	.4082	555.8	.6775-03
100	90.000	35000	826.00	.8167-01	.9827-01	.1094	62.62	5.114	.4081	555.6	.1215-02
101	90.000	35000	828.00	.6167-01	.7435-01	.8287-01	61.71	3.806	.4136	560.4	.9160-03
101	90.000	36500	829.00	.4967-01	.5988-01	.6674-01	61.75	3.067	.4133	559.9	.7378-03
101	90.000	37000	830.00	.4765-01	.5744-01	.6401-01	61.75	2.942	.4132	559.8	.7077-03
101	90.000	37500	831.00	.4637-01	.5590-01	.6230-01	61.76	2.864	.4132	559.8	.6888-03
101	90.000	38000	832.00	.4320-01	.5208-01	.5804-01	61.77	2.669	.4131	559.7	.6417-03
101	90.000	39000	833.00	.3781-01	.4557-01	.5079-01	61.74	2.334	.4133	560.0	.5615-03
101	90.000	40000	834.00	.3543-01	.4271-01	.4760-01	61.74	2.188	.4133	559.9	.5263-03
101	90.000	50000	835.00	.3744-01	.4512-01	.5028-01	61.82	2.315	.4126	559.0	.5560-03

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AMES 3.5-211 1H48

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(RMBF15)

EXT TANK

ARC3.5-211(1H48)OT /NIPPLE/P/TRIP

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TH DEG. R	STN NO R=0.9
101	90.000	.60000	836.00	.3497-01	.4220-01	.4707-01	61.43	2.148	.4162	563.9	.5199-03
101	90.000	.70000	837.00	.2908-01	.3508-01	.3911-01	61.54	1.789	.4152	562.5	.4321-03
101	90.000	.80000	838.00	.3350-01	.4044-01	.4511-01	61.54	2.055	.4169	564.9	.4982-03
101	90.000	.90000	839.00	.2684-01	.3236-01	.3607-01	61.73	1.657	.4134	550.1	.3987-03
101	112.50	.23000	840.00	.4822-01	.5811-01	.6476-01	61.94	2.382	.4124	558.7	.7161-03
101	112.50	.25000	841.00	.3790-01	.4560-01	.5076-01	62.34	2.363	.4078	552.5	.5621-03
101	112.50	.27000	842.00	.1776-01	.2135-01	.2375-01	62.66	1.113	.4049	548.5	.2632-03
101	112.50	.30000	843.00	.4697-01	.5658-01	.6304-01	61.94	2.909	.4115	557.5	.6972-03
101	112.50	.33000	844.00	.4518-01	.5445-01	.6068-01	61.78	2.791	.4130	559.5	.6709-03
101	112.50	.35000	845.00	.4441-01	.5353-01	.5966-01	61.76	2.743	.4132	559.8	.6596-03
101	112.50	.37000	846.00	.4347-01	.5240-01	.5840-01	61.76	2.685	.4132	559.7	.6457-03
101	112.50	.40000	847.00	.4213-01	.5079-01	.5660-01	61.78	2.603	.4130	559.5	.6257-03
101	112.50	.45000	848.00	.4208-01	.5071-01	.5652-01	61.78	2.599	.4130	559.5	.6249-03
101	112.50	.50000	849.00	.4323-01	.5209-01	.5803-01	61.90	2.676	.4119	558.0	.6418-03
101	112.50	.55000	850.00	.4235-01	.5101-01	.5681-01	62.05	2.628	.4105	556.2	.6285-03
101	112.50	.60000	851.00	.4303-01	.5190-01	.5787-01	61.56	2.649	.4150	562.3	.6394-03
101	112.50	.65000	852.00	.5438-01	.6360-01	.7315-01	61.51	3.345	.4155	562.9	.8082-03
101	112.50	.70000	853.00	.4675-01	.5638-01	.6286-01	61.60	2.880	.4146	561.7	.6946-03
101	112.50	.75000	854.00	.4039-01	.4866-01	.5421-01	61.93	2.501	.4116	557.7	.5996-03
101	112.50	.80000	855.00	.3434-01	.4145-01	.4623-01	61.40	2.109	.4165	564.2	.5106-03
101	112.50	.90000	856.00	.2966-01	.3577-01	.3988-01	61.60	1.827	.4147	561.8	.4407-03
101	125.40	.84000	857.00	.4782-01	.5769-01	.6433-01	61.52	2.942	.4153	562.7	.7107-03
101	125.40	.85000	858.00	.4884-01	.5893-01	.6571-01	61.50	3.004	.4155	563.0	.7259-03
101	125.40	.86000	859.00	.4208-01	.5106-01	.5716-01	59.78	2.516	.4314	584.5	.6285-03
101	125.40	.87000	860.00	.3224-01	.3891-01	.4341-01	61.35	1.978	.4169	564.8	.4794-03
101	125.40	.88000	861.00	.2446-01	.2953-01	.3294-01	61.33	1.500	.4171	565.1	.3638-03
101	125.40	.89000	862.00	.2936-01	.3616-01	.4034-01	61.32	1.837	.4172	565.2	.4454-03
101	125.40	.90000	863.00	.3773-01	.4552-01	.5076-01	61.50	2.321	.4156	563.0	.5608-03
101	125.40	.91000	864.00	.3990-01	.4809-01	.5360-01	61.76	2.464	.4131	559.7	.5925-03
101	125.40	.92000	865.00	.3936-01	.4812-01	.5368-01	61.33	2.445	.4171	565.1	.5928-03
101	129.30	.80000	866.00	.3754-01	.4529-01	.5051-01	61.44	2.306	.4161	563.7	.5580-03
101	129.30	.81000	867.00	.3701-01	.4457-01	.4982-01	61.39	2.272	.4165	564.3	.5502-03
101	129.30	.82000	868.00	.3195-01	.4299-01	.4799-01	61.48	1.964	.4158	563.3	.4749-03
101	129.30	.83000	869.00	.3960-01	.4777-01	.5327-01	61.52	2.436	.4153	562.7	.5885-03
101	135.00	.40000-01	870.00	.5491	.6601	.7344	62.59	34.36	.4056	549.5	.8137-02
101	135.00	.50000-01	871.00	.4766	.5734	.6482	62.36	29.72	.4076	552.2	.7069-02
101	135.00	.60000-01	872.00	.4329	.5209	.5799	62.31	26.97	.4081	552.9	.6420-02
101	135.00	.70000-01	873.00	.5732	.5093	.5669	62.29	26.36	.4083	553.2	.6276-02
101	135.00	.80000-01	874.00	.985	.5999	.6678	62.29	31.05	.4083	553.1	.7393-02
101	135.00	.10000-00	875.00	.2847	.3426	.3814	62.31	17.74	.4081	552.9	.4223-02
101	135.00	.15000	876.00	.1686	.2029	.2259	62.24	10.49	.4089	553.8	.2501-02
101	135.00	.20000	877.00	.9040-01	.1088	.1212	62.13	5.617	.4098	555.2	.1341-02
101	135.00	.35000	878.00	.5005-01	.6028-01	.6715-01	62.00	3.103	.4110	556.8	.7428-03

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(RMBF15)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	EXT TANK ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
101	135.00	40000	879.00	.4875-01	.5872-01	.6541-01	61.99	3.022	.4110	556.8	.7236-03
101	135.00	50000	880.00	.1124	.1354	.1508	62.10	6.983	.4100	555.5	.1669-02
101	135.00	55000	881.00	.9890-01	.1190	.1325	62.33	6.165	.4079	552.6	.1467-02
101	135.00	60000	882.00	.6365-01	.7629-01	.8544-01	61.89	3.939	.4120	558.1	.9450-03
101	135.00	65000	883.00	.5584-01	.6799-01	.7498-01	61.84	3.453	.4124	558.7	.8291-03
101	135.00	70000	884.00	.4020-01	.5808-01	.6470-01	61.92	2.985	.4117	557.8	.7156-03
101	135.00	75000	885.00	.4322-01	.5206-01	.5799-01	62.00	2.680	.4110	556.8	.6415-03
101	135.00	80000	886.00	.4253-01	.5131-01	.5721-01	61.51	2.616	.4155	562.9	.6321-03
101	135.00	84000	887.00	.7495-01	.9041-01	.1008	61.55	4.614	.4151	562.3	.1114-02
101	135.00	85000	888.00	.9168-01	.1106	.1233	61.57	5.645	.4149	562.2	.1362-02
101	135.00	86000	889.00	.5250-01	.6334-01	.7064-01	61.48	3.228	.4158	563.3	.7804-03
101	135.00	87000	890.00	.4650-01	.5612-01	.6259-01	61.39	2.855	.4166	564.3	.6913-03
101	135.00	88000	891.00	.3975-01	.4798-01	.5353-01	61.32	2.437	.4172	565.3	.5911-03
101	135.00	89000	892.00	.3091-01	.3731-01	.4161-01	61.35	1.896	.4169	564.8	.4596-03
101	135.00	90000	893.00	.5376-01	.5465-01	.7231-01	61.51	3.307	.4154	562.8	.7989-03
101	135.00	91000	894.00	.5547-01	.6686-01	.7451-01	61.76	3.426	.4131	559.7	.8238-03
101	135.00	92000	895.00	.9477-01	.1144	.1276	61.31	5.811	.4173	565.3	.1409-02
101	135.00	93000	896.00	.2827-01	.3416-01	.3813-01	61.02	1.725	.4200	568.9	.4207-03
101	142.30	94000	897.00	.6344-01	.7639-01	.8508-01	62.10	3.940	.4101	555.6	.9414-03
101	142.30	95000	898.00	.7466-01	.8989-01	.1001	62.13	4.638	.4098	555.2	.1108-02
101	142.30	96000	899.00	.7735-01	.9313-01	.1037	62.12	4.805	.4099	555.3	.1148-02
101	142.30	97000	900.00	.1026	.1235	.1375	62.21	6.381	.4091	554.2	.1522-02
101	142.30	98000	901.00	.8607-01	.1037	.1155	62.04	5.340	.4106	556.3	.1277-02
101	142.30	99000	902.00	.6558-01	.7898-01	.8796-01	62.05	4.069	.4105	556.1	.9732-03
102	154.39	94500	914.00	.2289	.2769	.3092	60.49	13.85	.4232	569.9	.3405-02
102	157.50	70000-01	918.00	.4149	.5011	.5593	60.85	25.25	.4188	565.3	.6164-02
102	157.50	80000-01	919.00	.4285	.5174	.5774	60.88	26.08	.4186	565.0	.6365-02
102	157.50	10000+00	920.00	.3013	.3639	.4060	60.91	18.35	.4183	564.6	.4476-02
102	157.50	20000	922.00	.9434-01	.1139	.1271	60.88	5.744	.4175	565.0	.1401-02
102	157.50	42000	923.00	.9912-01	.1197	.1337	60.77	6.023	.4173	566.4	.1473-02
102	157.50	85000	926.00	.4271-01	.5170-01	.5779-01	60.18	2.570	.4251	573.8	.6357-03
102	157.50	85000	927.00	.4294-01	.5199-01	.5812-01	60.11	2.581	.4257	574.6	.6393-03
102	157.50	87000	928.00	.4286-01	.5191-01	.5803-01	60.08	2.575	.4260	575.0	.6382-03
102	157.50	88000	929.00	.5546-01	.6717-01	.7510-01	60.05	3.331	.4262	575.3	.8259-03
102	157.50	89000	930.00	.1038	.1256	.1404	60.17	6.244	.4252	573.9	.1545-02
102	157.50	90000	931.00	.1426	.1724	.1926	60.48	8.623	.4233	570.0	.2121-02
102	157.50	91000	932.00	.1363	.1646	.1837	60.89	8.301	.4185	564.9	.2025-02
102	157.50	92000	933.00	.1462	.1768	.1975	60.53	8.851	.4219	569.4	.2175-02
102	157.50	93000	934.00	.1006	.1216	.1357	60.79	6.118	.4194	566.1	.1495-02
102	163.12	41500	935.00	.1001	.1209	.1350	60.75	6.079	.4198	566.6	.1487-02
102	163.12	42000	936.00	.1931	.2333	.2605	60.64	11.71	.4208	567.9	.2870-02
102	163.12	43000	937.00	.1931	.2333	.2605	60.64	12.41	.4204	567.4	.3039-02
102	163.12	44000	938.00	.2045	.2471	.2759	60.69	12.41	.4204	567.4	.3039-02
102	163.12	44500	939.00	.2133	.2577	.2876	60.78	12.96	.4196	566.3	.3170-02

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(RREF15)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TH DEG. R	STN NO R=0.9
102	163.12	.45000	940.00	.2141	.2586	.2886	60.81	13.02	.4192	965.9	.3180-02
102	163.12	.50000	941.00	.1019	.1230	.1371	61.18	6.236	.4158	961.2	.1513-02
102	163.12	.60000	942.00	.7132-01	.8615-01	.9614-01	60.84	4.339	.4190	965.5	.1060-02
102	163.12	.70000	943.00	.5537-01	.6686-01	.7460-01	60.94	3.374	.4180	964.3	.8224-03
102	163.12	.80000	944.00	.4766-01	.5765-01	.6439-01	60.45	2.881	.4226	970.4	.7089-03
102	168.00	.35000	945.00	.5493-01	.6631-01	.7398-01	60.99	3.350	.4176	963.6	.8157-03
102	168.00	.36000	946.00	.5460-01	.6592-01	.7354-01	60.98	3.329	.4177	963.8	.8109-03
102	168.00	.37000	947.00	.5333-01	.6439-01	.7184-01	60.97	3.252	.4177	963.9	.7921-03
102	168.00	.37500	948.00	.5290-01	.6388-01	.7127-01	60.92	3.223	.4182	964.5	.7857-03
102	168.00	.38500	950.00	.4454-01	.5376-01	.5997-01	61.05	2.719	.4170	962.8	.6614-03
102	168.00	.39000	951.00	.5109-01	.6170-01	.6885-01	60.88	3.110	.4186	965.0	.7589-03
102	168.00	.39500	952.00	.5025-01	.6069-01	.6773-01	60.87	3.059	.4187	965.1	.7465-03
102	168.00	.40000	953.00	.5160-01	.6233-01	.6956-01	60.85	3.140	.4189	965.4	.7667-03
102	168.00	.40500	954.00	.6091-01	.7358-01	.8211-01	60.83	3.705	.4191	965.7	.9050-03
102	168.00	.41000	955.00	.8212-01	.9915-01	.1106	60.98	5.008	.4177	963.7	.1220-02
102	168.00	.41500	956.00	.1028	.1242	.1386	60.78	6.247	.4195	966.3	.1527-02
102	168.00	.42000	957.00	.1159	.1400	.1562	60.76	7.039	.4197	966.5	.1722-02
102	168.00	.42500	958.00	.1316	.1589	.1774	60.81	8.001	.4192	965.8	.1955-02
102	168.00	.43000	959.00	.3009	.3635	.4058	60.74	18.27	.4199	966.8	.4471-02
102	168.00	.44000	960.00	.3129	.3781	.4220	60.75	19.01	.4198	966.6	.4650-02
102	168.00	.44500	961.00	.1922	.2322	.2592	60.83	11.69	.4190	965.6	.2856-02
102	168.00	.45000	962.00	.1390	.1679	.1873	60.90	8.465	.4184	964.7	.2055-02
102	168.00	.45500	963.00	.1305	.1576	.1759	60.93	7.954	.4181	964.4	.1939-02
102	168.00	.46000	964.00	.1306	.1576	.1759	60.95	7.957	.4180	964.2	.1939-02
102	168.00	.47000	965.00	.1539	.1858	.2073	61.00	9.388	.4174	963.5	.2285-02
102	168.00	.48000	966.00	.1319	.1592	.1776	61.06	8.055	.4170	962.8	.1959-02
102	168.00	.49000	967.00	.7720-01	.9315-01	.1039	61.18	4.723	.4158	961.2	.1146-02
102	168.00	.85000	969.00	.5509-01	.6653-01	.7442-01	60.45	3.331	.4225	970.3	.8194-03
102	168.00	.85000	969.00	.5410-01	.6544-01	.7310-01	60.40	3.267	.4231	971.1	.8047-03
102	168.00	.87000	970.00	.5150-01	.6232-01	.6963-01	60.31	3.106	.4239	972.2	.7663-03
102	168.00	.88000	971.00	.9256-01	.1120	.1251	60.42	5.592	.4229	970.8	.1377-02
102	168.00	.89000	972.00	.2036	.2463	.2751	60.45	12.31	.4226	970.4	.3028-02
102	168.00	.90000	973.00	.1721	.2080	.2321	60.74	10.45	.4199	966.8	.2558-02
102	166.00	.91000	974.00	.1023	.1234	.1376	61.17	6.256	.4159	961.4	.1518-02
102	168.00	.92600	975.00	.1403	.1694	.1891	60.85	8.536	.4189	965.4	.2084-03
102	168.00	.95000	976.00	.5719-01	.6912-01	.7717-01	60.58	3.470	.4205	967.6	.8501-03
102	180.00	.20000-01	982.00	.3541	.4277	.4774	60.83	21.54	.4191	965.6	.5261-02
102	180.00	.25000-01	983.00	.6050	.7302	.8145	61.07	36.95	.4168	962.6	.8982-02
102	180.00	.30000-01	984.00	.6938	.8431	.9403	61.16	42.73	.4160	961.6	.1037-01
98	180.00	.40000-01	600.00	.5672	.6793	.7537	65.57	37.20	.3936	547.1	.8515-02
98	180.00	.50000-01	601.00	.5086	.6094	.6764	65.48	33.26	.3954	549.4	.7639-02
98	180.00	.60000-01	602.00	.4726	.5654	.6288	65.30	30.86	.3961	550.5	.7099-02
98	180.00	.70000-01	603.00	.4349	.5213	.5787	65.28	28.39	.3963	550.7	.6534-02

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(RREF15)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
98	180.00	.80000-01	604.00	.4743	.5684	.6310	65.31	30.97	.3960	550.3	.7124-02
98	180.00	.10000-00	605.00	.2041	.3405	.3780	65.30	18.55	.3961	550.5	.4268-02
98	180.00	.15000	606.00	.1746	.2093	.2323	65.32	11.41	.3959	550.2	.2623-02
98	180.00	.20000	607.00	.9489-01	.1138	.1263	65.20	6.187	.3970	551.7	.1426-02
98	180.00	.21000	608.00	.7774-01	.9320-01	.1035	65.18	5.067	.3971	551.9	.1168-02
98	180.00	.30000	610.00	.5822-01	.9773-01	.7737-01	65.51	3.814	.3942	547.9	.8740-03
98	180.00	.35000	611.00	.5370-01	.6434-01	.7141-01	65.41	3.513	.3951	549.1	.8065-03
98	180.00	.36000	612.00	.5173-01	.6198-01	.6879-01	65.38	3.382	.3953	549.4	.7769-03
98	180.00	.37000	613.00	.5314-01	.6368-01	.7058-01	65.34	3.472	.3957	549.9	.7981-03
98	180.00	.37500	614.00	.5333-01	.6390-01	.7094-01	65.33	3.484	.3958	550.0	.8010-03
98	180.00	.38000	615.00	.5257-01	.6300-01	.7053-01	65.32	3.464	.3958	550.1	.7964-03
98	180.00	.39500	616.00	.5258-01	.6302-01	.6994-01	65.27	3.434	.3959	550.2	.7897-03
98	180.00	.39000	617.00	.5258-01	.6302-01	.6994-01	65.27	3.432	.3959	550.9	.7899-03
98	180.00	.40000	618.00	.6059-01	.6345-01	.7044-01	65.26	3.455	.3965	551.0	.7953-03
98	180.00	.42500	619.00	.6059-01	.7262-01	.8063-01	65.24	3.953	.3966	551.2	.9103-03
98	180.00	.41000	620.00	.8318-01	.9971-01	.1107	65.22	5.426	.3968	551.4	.1250-02
98	180.00	.41500	621.00	.1407	.1246	.1383	65.27	6.785	.3963	550.8	.1561-02
98	180.00	.42500	622.00	.1407	.1687	.1873	65.14	9.166	.3975	552.4	.2114-02
98	180.00	.43000	624.00	.2585	.2908	.3229	65.14	15.80	.3975	552.4	.3644-02
98	180.00	.43000	625.00	.2585	.3100	.3443	65.07	16.82	.3982	553.4	.3885-02
98	180.00	.44000	626.00	.3546	.4252	.4721	65.15	23.10	.3974	552.3	.5329-02
98	180.00	.45000	627.00	.4042	.4846	.5381	65.17	26.35	.3972	552.0	.6074-02
98	180.00	.45000	628.00	.3659	.4387	.4871	65.20	23.86	.3970	551.7	.5498-02
98	180.00	.45000	629.00	.2885	.3458	.3940	65.22	18.61	.3968	551.5	.4334-02
98	180.00	.46000	630.00	.2216	.2656	.2949	65.21	14.45	.3969	551.6	.3329-02
98	180.00	.47000	631.00	.1122	.1351	.1505	63.60	7.133	.4113	571.6	.1692-02
98	180.00	.48000	632.00	.6126-01	.7343-01	.8153-01	65.26	3.998	.3964	550.9	.9204-03
98	180.00	.49000	633.00	.3304-01	.3959-01	.4395-01	65.34	2.158	.3958	550.0	.4962-03
98	180.00	.50000	634.00	.2885-01	.3455-01	.3834-01	65.52	1.890	.3941	547.7	.4332-03
98	180.00	.55000	635.00	.1434	.1717	.1904	65.66	9.415	.3929	546.0	.2152-02
98	180.00	.60000	636.00	.6969-01	.8354-01	.9275-01	65.23	4.546	.3967	551.4	.1047-02
98	180.00	.65000	637.00	.7338-01	.8797-01	.9769-01	65.16	4.782	.3973	552.1	.1103-02
98	180.00	.70000	638.00	.7092-01	.8500-01	.9436-01	65.29	4.630	.3962	550.6	.1065-02
98	180.00	.75000	639.00	.7106-01	.8512-01	.9446-01	65.49	4.634	.3944	548.1	.1067-02
98	180.00	.80000	640.00	.4926-01	.5908-01	.6562-01	65.06	3.205	.3983	553.5	.7404-03
98	180.00	.85000	641.00	.7637-01	.9162-01	.1018	64.94	4.959	.3993	555.0	.1148-02
98	180.00	.86000	642.00	.8216-01	.9859-01	.1095	64.86	5.329	.4000	555.0	.1236-02
98	180.00	.87000	643.00	.8394-01	.1007	.1119	64.84	5.443	.4002	555.0	.1262-02
98	180.00	.88000	644.00	.8866-01	.1064	.1182	64.86	5.750	.4000	555.0	.1333-02
98	180.00	.89000	645.00	.9777-01	.1173	.1303	64.98	6.353	.3990	554.5	.1470-02
98	180.00	.90000	646.00	.9737-01	.1167	.1296	65.28	6.357	.3963	550.7	.1463-02
98	180.00	.92500	648.00	.4363	.5229	.5805	65.27	28.48	.3963	550.8	.6554-02
98	180.00	.95000	649.00	.1676-01	.2010-01	.2233-01	65.01	1.089	.3987	554.0	.2519-03

AMES 3.5-211 1H48

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	H/M/HT	TH DEG. R	STN NO R=0.9
98	191.25	.35000	650.00	.5042-01	.6041-01	.6704-01	65.42	3.299	.3950	548.9	.7572-03
98	191.25	.35000	651.00	.5065-01	.6067-01	.6734-01	65.46	3.316	.3946	548.4	.7606-03
98	191.25	.37000	652.00	.5132-01	.6147-01	.6822-01	65.51	3.362	.3943	547.9	.7706-03
98	191.25	.37500	653.00	.6183-01	.7406-01	.8219-01	65.59	4.050	.3944	548.1	.9284-03
98	191.25	.39000	654.00	.6211-01	.7438-01	.8253-01	65.56	4.072	.3938	547.2	.9324-03
98	191.25	.38500	655.00	.6540-01	.7832-01	.8691-01	65.55	4.287	.3938	547.3	.9818-03
98	191.25	.39000	656.00	.5924-01	.7096-01	.7874-01	65.50	3.880	.3943	548.0	.8895-03
98	191.25	.39500	657.00	.6200-01	.7426-01	.8241-01	65.52	4.062	.3942	547.8	.9309-03
98	191.25	.40000	658.00	.8515-01	.1020	.1132	65.46	5.574	.3945	548.4	.1279-02
98	191.25	.40500	659.00	.8715-01	.1044	.1158	65.48	5.736	.3946	548.2	.1309-02
98	191.25	.41500	661.00	.7932-01	.9502-01	.1055	65.47	5.193	.3946	548.3	.1191-02
98	191.25	.42000	662.00	.1296	.1553	.1723	65.44	5.736	.3946	548.7	.1945-02
98	191.25	.43000	663.00	.1678	.2010	.2231	65.45	8.482	.3948	548.7	.2520-02
98	191.25	.44000	664.00	.2665	.3192	.3543	65.46	10.98	.3948	548.6	.4001-02
98	191.25	.45000	665.00	.2793	.3345	.3713	65.47	17.44	.3948	548.5	.4193-02
98	191.25	.46000	666.00	.1560	.1868	.2073	65.45	10.21	.3946	548.4	.2342-02
98	191.25	.45500	667.00	.1696	.2033	.2257	65.49	11.06	.3969	551.6	.2548-02
98	191.25	.46000	668.00	.1660	.1988	.2206	65.52	9.922	.3944	548.1	.2492-02
98	191.25	.47000	669.00	.1515	.1815	.2014	65.51	10.87	.3941	547.7	.2275-02
98	191.25	.48000	670.00	.1639	.1963	.2178	65.52	10.74	.3933	546.6	.2461-02
98	191.25	.49000	671.00	.1371	.1641	.1821	65.61	8.993	.3921	544.9	.2057-02
98	191.25	.50000	672.00	.1351	.1617	.1794	65.75	8.885	.3941	547.7	.9517-03
98	191.25	.50000	673.00	.6339-01	.7592-01	.8424-01	65.52	4.153	.3936	556.4	.7914-03
98	191.25	.70000	674.00	.5272-01	.6313-01	.7004-01	65.58	3.457	.4006	556.9	.1119-02
98	191.25	.95000	675.00	.7448-01	.8939-01	.9934-01	64.80	4.826	.4010	556.9	.1261-02
98	191.25	.35000	677.00	.9395-01	.1008	.1120	64.75	5.435	.4010	556.9	.1227-02
98	191.25	.87000	678.00	.8165-01	.9802-01	.1089	64.75	5.287	.4011	557.1	.1253-02
98	191.25	.89000	679.00	.8335-01	.1001	.1112	64.74	5.395	.3999	555.4	.1382-02
98	191.25	.90000	680.00	.9198-01	.1104	.1226	65.07	6.820	.3981	552.9	.1574-02
98	191.25	.92000	681.00	.1048	.1257	.1395	65.35	7.054	.3956	549.5	.1620-02
98	191.25	.91000	682.00	.1079	.1293	.1436	65.05	22.43	.3983	553.2	.5178-02
98	191.25	.92600	683.00	.3448	.4136	.4594	65.79	1.863	.4006	556.4	.4320-03
98	191.25	.35000	684.00	.2875-01	.3451-01	.3835-01	64.79	1.863	.3982	553.0	.7669-03
98	191.25	.35000	685.00	.5254-01	.6301-01	.6998-01	65.06	3.419	.3979	552.6	.7619-03
98	191.25	.33000	686.00	.5075-01	.6085-01	.6758-01	65.10	3.303	.3977	552.3	.7713-03
98	197.00	.35000	687.00	.5137-01	.6150-01	.6841-01	65.12	3.345	.3974	552.0	.8039-03
98	197.00	.36000	688.00	.5354-01	.6420-01	.7120-01	65.15	3.488	.3962	550.3	.1321-02
98	197.00	.37000	689.00	.8900-01	.1055	.1171	65.28	5.745	.3961	550.2	.1635-02
98	197.00	.37500	690.00	.1090	.1307	.1451	65.29	7.118	.3939	547.0	.3693-02
98	197.00	.50000	691.00	.2456	.2941	.3263	65.55	16.10	.3961	553.2	.1118-02
98	197.00	.60000	692.00	.7451-01	.8930-01	.9913-01	65.29	4.855	.3961	549.8	.1268-02
98	197.00	.70000	693.00	.8151-01	.1013	.1124	65.32	5.520	.3959	552.6	.8182-03
98	197.00	.80000	694.00	.5443-01	.6534-01	.7257-01	65.10	3.548	.3978		

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DATE 05 MAR 76

PUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HPEF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	EXT TANK ODOT BTU/ F12SEC	IM/MT	TM DEG. R	STN NO R=0.9
99	197.00	.87000	0	.9210-01	.1105	.1228	64.91	5.979	.3995	554.9	.1384-02
99	197.00	.92600	650.00	.3179	.3812	.4234	65.13	20.71	.3976	552.2	.4774-02
99	209.80	.15000-01	697.00	.5978	.2377	.2644	64.42	12.75	.4039	561.0	.2975-02
99	209.80	.30000-01	698.00	.5942	.7125	.7913	65.11	38.69	.3977	552.4	.8925-02
99	209.80	.50000-01	699.00	.5714	.6851	.7607	65.15	37.23	.3974	551.9	.8578-02
99	209.80	.70000-01	700.00	.5277	.6325	.7023	65.22	34.41	.3968	551.1	.7320-02
99	209.80	.10000+00	701.00	.4008	.4803	.5331	65.33	26.18	.3958	549.7	.6014-02
99	209.80	.15000	702.00	.2202	.2638	.2928	65.46	14.41	.3947	548.2	.3304-02
99	209.80	.20000	703.00	.9327-01	.1118	.1241	65.27	6.087	.3964	550.5	.1400-02
99	209.80	.30000	704.00	.5541-01	.6842-01	.7375-01	65.20	3.612	.3970	551.4	.8317-03
99	209.80	.35000	705.00	.5295-01	.6348-01	.7049-01	65.18	3.451	.3972	551.6	.7949-03
99	209.80	.37500	706.00	.9932-01	.1178	.1307	65.41	6.431	.3951	548.8	.1475-02
99	209.80	.50000	707.00	.1353	.1628	.1812	64.04	8.668	.4073	565.7	.2037-02
99	209.80	.60000	708.00	.5370-01	.6432-01	.7138-01	65.49	3.517	.3944	547.7	.9055-03
99	209.80	.70000	709.00	.4640-01	.5356-01	.6165-01	65.56	3.042	.3938	546.9	.6959-03
99	209.80	.80000	710.00	.3264-01	.3911-01	.4341-01	65.34	2.133	.3957	549.6	.4898-03
99	209.80	.87000	711.00	.5964-01	.7150-01	.7938-01	65.22	3.890	.3962	551.0	.8953-03
99	209.80	.92600	712.00	.1691	.2027	.2250	65.28	11.04	.4049	550.3	.2538-02
99	209.80	.15000-01	713.00	.2396	.2880	.3204	64.31	15.41	.3974	562.4	.3605-02
99	217.70	.30000-01	714.00	.5679	.6809	.7561	65.15	37.00	.3982	551.9	.8526-02
99	217.70	.50000-01	715.00	.4614	.5773	.6412	65.06	31.32	.3966	553.1	.7228-02
99	217.70	.70000-01	716.00	.5737	.6877	.7635	65.24	37.43	.3951	550.8	.8612-02
99	217.70	.10000+00	717.00	.2992	.3584	.3978	65.41	19.57	.3947	548.7	.4489-02
99	217.70	.15000	718.00	.2328	.2789	.3095	65.45	15.24	.3947	548.2	.3492-02
99	217.70	.20000	719.00	.9279-01	.1112	.1234	65.30	6.059	.3960	550.0	.1393-02
99	217.70	.30000	720.00	.6570-01	.7875-01	.8743-01	65.24	4.286	.3966	550.8	.9861-03
99	217.70	.35000	721.00	.6123-01	.7341-01	.8151-01	65.18	8.991	.3972	551.6	.9192-03
99	217.70	.37500	722.00	.6255-01	.7496-01	.8320-01	65.34	4.087	.3957	549.5	.9386-03
99	217.70	.50000	723.00	.1581	.1893	.2100	6.62	10.37	.3932	546.1	.2370-02
99	217.70	.60000	724.00	.6973-01	.8232-01	.9135-01	65.50	4.502	.3942	547.6	.1031-02
99	217.70	.70000	725.00	.4591-01	.5497-01	.6100-01	65.56	8.010	.3937	546.8	.6885-03
99	217.70	.80000	726.00	.3759-01	.4505-01	.5001-01	65.32	8.455	.3959	549.9	.5641-03
99	217.70	.87000	727.00	.5355-01	.6416-01	.7122-01	65.35	8.499	.3956	549.5	.8035-03
99	217.70	.92600	728.00	.1323	.1586	.1761	65.26	8.636	.3964	550.5	.1986-02



DATE 05 MAR 75

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(RNF16)

EXTERNAL TANK

ARC3.5-211(1M48)ET /NIPPLE/CLEAN

EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 1.500

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	INP DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
103	.0000	.0000	5.200	1.576	114.1	1248.	304.2	.1690	197.8	.7167-04	3585.	.1750-01
104	.0000	.0000	5.200	1.447	115.8	1329.	324.9	.1707	211.3	.6779-04	3705.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
104	.00000	.00000	729.00	.3454	.4149	.4613	34.80	12.02	.4029	545.7	.9210-02
104	.00000	.30000-02	730.00	.3211	.3857	.4288	34.82	11.18	.4026	545.2	.8561-02
104	.00000	.10000-01	731.00	.6465-01	.7760-01	.8624-01	34.93	2.258	.4008	542.8	.1723-02
104	.00000	.15000-01	732.00	.2498-01	.2997-01	.3330-01	35.00	.8743	.3996	541.2	.6554-03
104	.00000	.25000-01	734.00	.7897-01	.9467-01	.1051	35.15	2.776	.3970	537.7	.2102-02
104	.00000	.30000-01	735.00	.3103	.3719	.4129	35.18	10.92	.3966	537.1	.8238-02
104	.00000	.40000-01	737.00	.3727	.4469	.4963	35.13	13.10	.3974	536.1	.9922-02
104	.00000	.45000-01	739.00	.3709	.4448	.4940	35.10	13.02	.3980	539.0	.8375-02
104	.00000	.60000-01	740.00	.2514	.3015	.3349	35.07	8.818	.3984	539.5	.6534-02
104	.00000	.70000-01	741.00	.2270	.2723	.3024	35.08	7.953	.3983	539.4	.6345-02
104	.00000	.80000-01	742.00	.1639	.2399	.2663	35.10	5.741	.3979	539.8	.5323-02
104	.00000	.10000+00	743.00	.1635	.1951	.2178	35.10	4.175	.3978	538.7	.4354-02
104	.00000	.12500	744.00	.1189	.1426	.1584	35.11	3.118	.3978	538.8	.3166-02
104	.00000	.15000	745.00	.8883-01	.1065	.1183	35.11	1.878	.3978	538.8	.2365-02
104	.00000	.17500	746.00	.5349-01	.6414-01	.7123-01	35.11	1.225	.3983	539.4	.1424-02
104	.00000	.20000	747.00	.3491-01	.4197-01	.4650-01	35.08	.9928	.3987	539.9	.2286-03
104	.00000	.21500	748.00	.2832-01	.3397-01	.3773-01	35.05	.6856	.3987	539.9	.7542-03
104	.00000	.23000	749.00	.2178-01	.2613-01	.2902-01	35.05	.4816	.3989	540.0	.5801-03
104	.00000	.24500	750.00	.1968-01	.2361-01	.2622-01	35.04	.3979	.3989	540.2	.5241-03
104	.00000	.26000	751.00	.1372-01	.1645-01	.1827-01	35.10	.3979	.3989	539.8	.3553-03
104	.00000	.27500	752.00	.1493-01	.1799-01	.1987-01	35.08	.3979	.3989	539.4	.3991-03
104	.00000	.29000	753.00	.1500-01	.1811-01	.2011-01	35.11	.3978	.3978	538.7	.4021-03
104	.00000	.30500	754.00	.1743-01	.2089-01	.2320-01	35.15	.3971	.3971	537.7	.4639-03
103	.00000	.32000	755.00	.3101-01	.3750-01	.4189-01	31.15	.9659	.4224	535.4	.80-2-03
103	.00000	.33500	756.00	.2778-01	.3359-01	.3751-01	31.17	.8658	.4220	535.0	.7204-03
103	.00000	.35000	756.00	.279-01	.3383-01	.3779-01	31.14	.8711	.4225	535.6	.7255-03

ORIGINAL PAGE IS  
OF POOR QUALITY



DATE 05 MAR 76

AMES 3.5-211 1H-8

ARC3.5-211(1H-8)ET /NIPPLE/CLEAN

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HA/HT	TH DEG. R	STN NO R=0.9
103	112.50	.50000	849.00	.3171-01	.4279-01	31.22	.9900	.4210	533.7	.8220-03
103	112.50	.55000	850.00	.2933-01	.4039-01	31.24	.9351	.4207	533.3	.7759-03
103	112.50	.60000	851.00	.2809-01	.3872-01	31.23	.8958	.4210	533.7	.7437-03
103	112.50	.65000	852.00	.2805-01	.3786-01	31.23	.8761	.4214	533.7	.7274-03
103	112.50	.70000	853.00	.2802-01	.3691-01	31.20	.8994	.4208	534.2	.7473-03
103	112.50	.75000	854.00	.2724-01	.3576-01	31.21	.8509	.4212	533.4	.7062-03
103	112.50	.80000	855.00	.2639-01	.3562-01	31.23	.8237	.4209	534.0	.6843-03
103	112.50	.90000	856.00	.2612-01	.3525-01	31.23	.8156	.4199	533.6	.6771-03
103	135.00	.40000-01	870.00	.3955	.4878	31.29	12.06	.4209	533.6	.9930-02
103	135.00	.50000-01	871.00	.3615	.4369	31.23	11.29	.4209	533.6	.9371-02
103	135.00	.60000-01	872.00	.2551	.3442	31.24	7.959	.4208	533.4	.6513-02
103	135.00	.70000-01	873.00	.2297	.3099	31.25	7.177	.4205	533.1	.5553-02
103	135.00	.80000-01	874.00	.1947	.2626	31.27	6.088	.4202	532.7	.5046-02
103	135.00	.90000-01	875.00	.1683	.2270	31.28	5.265	.4200	532.4	.4352-02
103	135.00	.15000	876.00	.1070	.1195	31.26	2.759	.4203	532.9	.2296-02
103	135.00	.20000	877.00	.0857-01	.5209-01	31.22	1.205	.4212	532.9	.1001-02
103	135.00	.30000	878.00	.1872-01	.2527-01	31.23	.5646	.4210	533.3	.4854-03
103	135.00	.40000	879.00	.2376-01	.3206-01	31.24	.7424	.4207	533.3	.6160-03
103	135.00	.50000	880.00	.2933-01	.4049-01	31.17	.9345	.4200	535.3	.7776-03
103	135.00	.60000	881.00	.2933-01	.3526-01	31.18	.9148	.4218	534.7	.7609-03
103	135.00	.70000	882.00	.2933-01	.3953-01	31.18	.9148	.4219	534.9	.7510-03
103	135.00	.80000	883.00	.2933-01	.3548-01	31.16	.8322	.4221	535.3	.7437-03
103	135.00	.90000	884.00	.2863-01	.3697-01	31.19	.8301	.4211	535.3	.7338-03
103	135.00	.10000	885.00	.2843-01	.3570-01	31.19	.8346	.4216	535.3	.7239-03
103	135.00	.20000	886.00	.2649-01	.3576-01	31.21	.8267	.4214	535.3	.7140-03
103	135.00	.30000	887.00	.2557-01	.3576-01	31.17	2.358	.4210	535.3	.7041-03
103	135.00	.40000	888.00	.2557-01	.3576-01	31.19	10.45	.4210	535.3	.6942-03
103	135.00	.50000	889.00	.2557-01	.3576-01	31.19	13.01	.4210	535.3	.6843-03
103	135.00	.60000	890.00	.2557-01	.3576-01	31.19	11.53	.4210	535.3	.6744-03
103	135.00	.70000	891.00	.2557-01	.3576-01	31.19	9.50	.4210	535.3	.6645-03
103	135.00	.80000	892.00	.2557-01	.3576-01	31.19	7.11	.4210	535.3	.6546-03
103	135.00	.90000	893.00	.2557-01	.3576-01	31.19	5.17	.4210	535.3	.6447-03
103	135.00	.10000	894.00	.2557-01	.3576-01	31.19	2.97	.4210	535.3	.6348-03
103	135.00	.20000	895.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.6249-03
103	135.00	.30000	896.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.6150-03
103	135.00	.40000	897.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.6051-03
103	135.00	.50000	898.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5952-03
103	135.00	.60000	899.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5853-03
103	135.00	.70000	900.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5754-03
103	135.00	.80000	901.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5655-03
103	135.00	.90000	902.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5556-03
103	135.00	.10000	903.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5457-03
103	135.00	.20000	904.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5358-03
103	135.00	.30000	905.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5259-03
103	135.00	.40000	906.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5160-03
103	135.00	.50000	907.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.5061-03
103	135.00	.60000	908.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4962-03
103	135.00	.70000	909.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4863-03
103	135.00	.80000	910.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4764-03
103	135.00	.90000	911.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4665-03
103	135.00	.10000	912.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4566-03
103	135.00	.20000	913.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4467-03
103	135.00	.30000	914.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4368-03
103	135.00	.40000	915.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4269-03
103	135.00	.50000	916.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4170-03
103	135.00	.60000	917.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.4071-03
103	135.00	.70000	918.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3972-03
103	135.00	.80000	919.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3873-03
103	135.00	.90000	920.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3774-03
103	135.00	.10000	921.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3675-03
103	135.00	.20000	922.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3576-03
103	135.00	.30000	923.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3477-03
103	135.00	.40000	924.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3378-03
103	135.00	.50000	925.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3279-03
103	135.00	.60000	926.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3180-03
103	135.00	.70000	927.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.3081-03
103	135.00	.80000	928.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2982-03
103	135.00	.90000	929.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2883-03
103	135.00	.10000	930.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2784-03
103	135.00	.20000	931.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2685-03
103	135.00	.30000	932.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2586-03
103	135.00	.40000	933.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2487-03
103	135.00	.50000	934.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2388-03
103	135.00	.60000	935.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2289-03
103	135.00	.70000	936.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2190-03
103	135.00	.80000	937.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.2091-03
103	135.00	.90000	938.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1992-03
103	135.00	.10000	939.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1893-03
103	135.00	.20000	940.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1794-03
103	135.00	.30000	941.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1695-03
103	135.00	.40000	942.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1596-03
103	135.00	.50000	943.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1497-03
103	135.00	.60000	944.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1398-03
103	135.00	.70000	945.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1299-03
103	135.00	.80000	946.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1200-03
103	135.00	.90000	947.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1101-03
103	135.00	.10000	948.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.1002-03
103	135.00	.20000	949.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0903-03
103	135.00	.30000	950.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0804-03
103	135.00	.40000	951.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0705-03
103	135.00	.50000	952.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0606-03
103	135.00	.60000	953.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0507-03
103	135.00	.70000	954.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0408-03
103	135.00	.80000	955.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0309-03
103	135.00	.90000	956.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0210-03
103	135.00	.10000	957.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0111-03
103	135.00	.20000	958.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0012-03
103	135.00	.30000	959.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0013-03
103	135.00	.40000	960.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.0014-03
103	135.00	.50000	961.00	.2557-01	.3576-01	31.19	1.15	.4210	535.3	.

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EXT TANK

ARC3.5-211(1H48)ET /NIPPLE/CLEAN

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HA/HT	TM DEG. R	STN NO R=0.9
104	180.00	.48000	632.00	.2808-01	.3370-01	.3745-01	34.92	.9806	.4009	542.9	.7461-03
104	180.00	.50000	634.00	.2701-01	.3242-01	.3602-01	34.96	.9445	.4002	542.0	.7197-03
104	180.00	.55000	635.00	.2899-01	.3479-01	.3865-01	35.01	1.015	.3995	541.0	.7123-03
104	180.00	.60000	636.00	.2774-01	.3329-01	.3699-01	34.94	.9689	.4007	542.6	.7350-03
104	180.00	.65000	637.00	.2773-01	.3328-01	.3699-01	34.94	.9688	.4006	542.6	.7350-03
104	180.00	.70000	638.00	.2729-01	.3275-01	.3639-01	34.96	.9540	.4003	542.1	.7270-03
104	180.00	.75000	639.00	.2762-01	.3313-01	.3681-01	35.03	.9674	.3991	540.5	.7355-03
104	180.00	.80000	640.00	.2713-01	.3255-01	.3617-01	34.98	.9488	.4000	541.7	.7227-03
104	180.00	.85000	646.00	.2600-01	.3118-01	.3464-01	35.05	.9111	.3988	540.1	.6323-03
104	191.25	.90000	659.00	.2071-01	.2486-01	.2764-01	34.89	.7225	.4015	543.7	.5519-03
104	191.25	.95000	672.00	.2654-01	.3185-01	.3540-01	34.92	.9265	.4015	543.0	.7071-03
104	191.25	.70000	674.00	.2746-01	.3296-01	.3653-01	34.93	.9593	.4007	542.7	.7317-03
104	191.25	.90000	681.00	.2692-01	.3229-01	.3588-01	35.01	.9423	.3994	540.9	.7169-03
104	217.70	.50000-01	715.00	.3351	.4023	.4471	34.91	11.70	.4010	543.1	.6930-02
104	217.70	.70000-01	716.00	.2097	.2518	.2798	34.88	7.315	.4015	543.8	.5588-02
104	217.70	.10000+03	717.00	.1667	.2001	.2224	34.89	5.814	.4015	543.7	.4441-02
104	217.70	.15000	718.00	.1877-01	.1030	.1145	34.85	2.989	.4021	544.5	.2266-02
104	217.70	.20000	719.00	.3846-01	.4619-01	.5136-01	34.80	1.338	.4029	545.6	.1026-02
104	217.70	.30000	720.00	.1514-01	.1818-01	.2021-01	34.82	.5272	.4025	545.1	.4036-03
104	217.70	.35000	721.00	.1689-01	.2029-01	.2256-01	34.75	.5869	.4037	546.7	.4503-03
104	217.70	.50000	723.00	.2773-01	.3330-01	.3701-01	34.84	.9659	.4023	544.8	.7350-03
104	217.70	.60000	724.00	.2828-01	.3396-01	.3776-01	34.82	.9947	.4025	545.1	.7358-03
104	217.70	.70000	725.00	.2809-01	.3373-01	.3749-01	34.87	.9796	.4017	544.0	.7166-03
104	217.70	.80000	726.00	.2755-01	.3308-01	.3677-01	34.86	.9602	.4020	544.4	.7313-03
104	217.70	.87000	727.00	.2742-01	.3293-01	.3660-01	34.86	.9561	.4018	544.2	.7326-03

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EXTERNAL TASK

EXT TASK

ARC3.5-211(1H48)ET /NIPPLE/CLEAN

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 9.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBH	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
105	.0000	.0000	5.300	5.043	403.2	1290.	314.8	.5322	199.3	.2252-03	3659.	.1750-01
106	.0000	.0000	5.300	4.890	405.7	1320.	322.6	.5346	203.2	.2208-03	3703.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TH DEG. R	STN NO R=0.9
105	.00000	.30000-02	730.00	.2178	.3985	.4371	55.55	17.65	.4505	551.0	4708-02
105	.00000	.10000-01	731.00	.7725-01	.9428-01	.1050	56.57	4.324	.4457	552.0	1021-02
105	.00000	.15000-01	732.00	.4772-01	.5819-01	.6535-01	56.22	2.691	.4440	552.0	1021-02
105	.00000	.25000-01	734.00	.2837	.3751	.3870	55.83	16.12	.4392	572.0	4708-02
105	.00000	.30000-01	735.00	.3265	.6408	.7195	55.92	29.99	.4373	573.0	4708-02
105	.00000	.40000-01	737.00	.4143	.5048	.5651	56.73	23.59	.4331	573.0	4708-02
105	.00000	.45000-01	738.00	.4221	.5141	.5757	56.67	21.91	.4310	573.0	4708-02
105	.00000	.50000-01	739.00	.2443	.4153	.4706	56.54	19.41	.4210	573.0	4708-02
105	.00000	.70000-01	740.00	.3333	.4753	.4548	56.54	16.82	.4110	573.0	4708-02
105	.00000	.80000-01	741.00	.3072	.3742	.4200	56.53	17.71	.4010	573.0	4708-02
105	.00000	.10000-00	742.00	.2440	.2370	.3332	56.54	10.43	.3910	573.0	4708-02
105	.00000	.12500	743.00	.1842	.2242	.2515	56.71	7.622	.3810	573.0	4708-02
105	.00000	.15000	744.00	.1384	.1684	.1839	56.83	4.953	.3710	573.0	4708-02
105	.00000	.17500	745.00	.8721-01	.1061	.1190	56.85	3.333	.3610	573.0	4708-02
105	.00000	.20000	746.00	.6037-01	.7741-01	.8231-01	56.92	2.691	.3510	573.0	4708-02
105	.00000	.25000	747.00	.4222-01	.6059-01	.6791-01	56.92	2.691	.3410	573.0	4708-02
105	.00000	.30000	748.00	.3727-01	.5237-01	.5712-01	57.20	2.691	.3310	573.0	4708-02
105	.00000	.35000	749.00	.2861-01	.4110	.4393-01	57.32	2.691	.3210	573.0	4708-02
105	.00000	.40000	750.00	.2906-01	.4523-01	.5177-01	57.32	2.691	.3110	573.0	4708-02
105	.00000	.45000	751.00	.3537-01	.4110	.4532-01	57.32	2.691	.3010	573.0	4708-02
105	.00000	.50000	752.00	.3715-01	.3210	.4733-01	57.32	2.691	.2910	573.0	4708-02
105	.00000	.55000	753.00	.3780-01	.1993-01	.4935-01	60.59	2.691	.2810	573.0	4708-02
105	.00000	.60000	754.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2710	573.0	4708-02
105	.00000	.65000	755.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2610	573.0	4708-02
105	.00000	.70000	756.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2510	573.0	4708-02
105	.00000	.75000	757.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2410	573.0	4708-02
105	.00000	.80000	758.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2310	573.0	4708-02
105	.00000	.85000	759.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2210	573.0	4708-02
105	.00000	.90000	760.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2110	573.0	4708-02
105	.00000	.95000	761.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.2010	573.0	4708-02
105	.00000	.00000	762.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1910	573.0	4708-02
105	.00000	.05000	763.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1810	573.0	4708-02
105	.00000	.10000	764.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1710	573.0	4708-02
105	.00000	.15000	765.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1610	573.0	4708-02
105	.00000	.20000	766.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1510	573.0	4708-02
105	.00000	.25000	767.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1410	573.0	4708-02
105	.00000	.30000	768.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1310	573.0	4708-02
105	.00000	.35000	769.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1210	573.0	4708-02
105	.00000	.40000	770.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1110	573.0	4708-02
105	.00000	.45000	771.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.1010	573.0	4708-02
105	.00000	.50000	772.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0910	573.0	4708-02
105	.00000	.55000	773.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0810	573.0	4708-02
105	.00000	.60000	774.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0710	573.0	4708-02
105	.00000	.65000	775.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0610	573.0	4708-02
105	.00000	.70000	776.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0510	573.0	4708-02
105	.00000	.75000	777.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0410	573.0	4708-02
105	.00000	.80000	778.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0310	573.0	4708-02
105	.00000	.85000	779.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0210	573.0	4708-02
105	.00000	.90000	780.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0110	573.0	4708-02
105	.00000	.95000	781.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0010	573.0	4708-02
105	.00000	.00000	782.00	.3632-01	.1993-01	.4935-01	60.59	2.691	.0010	573.0	4708-02

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(REF 17)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HWT	TH DEG. R	STN NO R=0.9
106	57.500	.27000	770.00	.4304-01	.5188-01	.5781-01	61.21	2.635	.4128	555.1	.6273-03
106	57.500	.30000	772.00	.3919-01	.4811-01	.5144-01	60.71	2.319	.4175	561.4	.5553-03
106	57.500	.32000	774.00	.3796-01	.4595-01	.5118-01	60.51	2.297	.4194	563.9	.5631-03
106	57.500	.33000	776.00	.3790-01	.4579-01	.5110-01	60.50	2.293	.4195	564.1	.5522-03
106	57.500	.35000	780.00	.3722-01	.4496-01	.5018-01	60.53	2.253	.4192	563.7	.5521-03
106	57.500	.35000	783.00	.3544-01	.4302-01	.4817-01	57.42	2.035	.4326	557.6	.5215-03
106	57.500	.38000	786.00	.3576-01	.4340-01	.4859-01	57.51	2.057	.4317	556.5	.5263-03
106	57.500	.40000	788.00	.3605-01	.4376-01	.4901-01	57.40	2.059	.4328	557.8	.5355-03
106	57.500	.50000	789.00	.3632-01	.4411-01	.4940-01	57.33	2.053	.4334	558.6	.5348-03
106	57.500	.60000	790.00	.3552-01	.4319-01	.4841-01	57.01	2.025	.4355	572.7	.5235-03
106	57.500	.70000	791.00	.3851-01	.4680-01	.5245-01	57.12	2.200	.4354	571.3	.5113-03
106	57.500	.80000	792.00	.3471-01	.4219-01	.4729-01	57.03	1.979	.4353	572.5	.5113-03
106	57.500	.90000	793.00	.3497-01	.4243-01	.4750-01	57.58	2.014	.4311	565.6	.5145-03
106	57.500	.40000-01	985.00	.4250	.5144	.5748	59.58	25.49	.4243	570.6	.5315-03
106	57.500	.50000-01	986.00	.3820	.4627	.5172	59.77	22.83	.4263	573.2	.5679-03
106	57.500	.60000-01	987.00	.3443	.4170	.4652	59.73	20.56	.4265	573.6	.5113-03
106	57.500	.70000-01	988.00	.3452	.4181	.4675	59.71	20.61	.4262	573.9	.5113-03
106	57.500	.90000-01	989.00	.2999	.3533	.4062	59.73	17.92	.4266	573.6	.5113-03
106	57.500	.10000-00	990.00	.2510	.3039	.3397	59.90	15.04	.4251	571.8	.5731-03
106	57.500	.15000	991.00	.1354	.1651	.1845	60.00	8.195	.4241	570.2	.5227-03
106	57.500	.21000	813.00	.4180-01	.5057-01	.5650-01	60.09	2.512	.4233	563.0	.5339-03
106	57.500	.24000	814.00	.3622-01	.4378-01	.4888-01	60.36	2.185	.4238	563.0	.5339-03
106	57.500	.25000	815.00	.3011-01	.3532-01	.4050-01	60.93	1.834	.4155	559.7	.4481-03
106	57.500	.27000	816.00	.4196-01	.5059-01	.5638-01	61.15	2.565	.4135	555.3	.5244-03
106	57.500	.28000	817.00	.3828-01	.4620-01	.5153-01	60.80	2.328	.4165	560.2	.5274-03
106	57.500	.30000	818.00	.3655-01	.4669-01	.5212-01	60.50	2.338	.4195	564.0	.5734-03
106	57.500	.32000	820.00	.3885-01	.4697-01	.5245-01	60.31	2.343	.4213	565.5	.5757-03
106	57.500	.33000	822.00	.3844-01	.4645-01	.5185-01	60.44	2.323	.4201	564.6	.5723-03
106	57.500	.35000	825.00	.3949-01	.4651-01	.5192-01	60.46	2.327	.4199	564.6	.5711-03
106	57.500	.36000	832.00	.3582-01	.4449-01	.4966-01	60.49	2.227	.4195	564.2	.5463-03
106	57.500	.40000	834.00	.3575-01	.4320-01	.4822-01	60.45	2.151	.4200	564.7	.5335-03
106	57.500	.50000	835.00	.3857-01	.4570-01	.5212-01	60.59	2.343	.4185	562.9	.5735-03
106	57.500	.60000	836.00	.3427-01	.4147-01	.4633-01	60.03	2.057	.4238	569.9	.5091-03
106	57.500	.70000	837.00	.3775-01	.4564-01	.5097-01	60.29	2.276	.4214	566.7	.5654-03
106	57.500	.80000	839.00	.3562-01	.4310-01	.4816-01	60.00	2.137	.4241	573.3	.5291-03
106	57.500	.90000	842.00	.3440-01	.4153-01	.4634-01	60.64	2.056	.4192	563.4	.5100-03
106	57.500	.10000	843.00	.3396-01	.4092-01	.4559-01	61.35	2.084	.4116	566.6	.5227-03
106	57.500	.20000	844.00	.3935-01	.4757-01	.5312-01	60.30	2.373	.4214	566.6	.5641-03
106	57.500	.30000	845.00	.3813-01	.4614-01	.5156-01	59.98	2.267	.4243	570.5	.5554-03
106	57.500	.40000	845.00	.3741-01	.4527-01	.5059-01	59.97	2.243	.4244	570.7	.5557-03
106	57.500	.50000	846.00	.3716-01	.4496-01	.5024-01	60.01	2.230	.4241	570.2	.5520-03
106	57.500	.60000	847.00	.3634-01	.4397-01	.4913-01	60.04	2.182	.4239	569.8	.5398-03
106	57.500	.70000	848.00	.3671-01	.4443-01	.4964-01	59.99	2.202	.4242	570.5	.5454-03

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AMES 3.5-211 IH4B

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IRREF17)

EXT TANK

ARC3.5-211(IH4B)ET /NIPPLE/CLEAN

RUN NUMBER	PHI	%/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TA DEG. R	STN NO R=0.9
105	112.50	50000	849.00	.3738-01	.4519-01	.5046-01	60.31	2.254	.4213	566.5	5549-03
106	112.50	55000	850.00	.3505-01	.4235-01	.4726-01	60.59	2.124	.4188	563.1	5500-03
106	112.50	60000	851.00	.3513-01	.4254-01	.4757-01	59.76	2.099	.4264	573.3	5322-03
106	112.50	65000	852.00	.3496-01	.4236-01	.4738-01	59.64	2.085	.4274	574.7	5200-03
106	112.50	70000	853.00	.3676-01	.4449-01	.4971-01	60.01	2.206	.4240	570.2	5461-03
106	112.50	75000	854.00	.3551-01	.4289-01	.4786-01	60.57	2.151	.4188	563.1	5265-03
106	112.50	80000	855.00	.3397-01	.4111-01	.4594-01	59.97	2.037	.4244	570.7	5047-03
106	112.50	90000	856.00	.3422-01	.4134-01	.4614-01	60.49	2.070	.4196	564.2	5076-03
106	135.00	40000-01	870.00	.4354	.5274	.5896	59.77	26.03	.4263	573.2	6473-02
106	135.00	50000-01	871.00	.3865	.4686	.5244	59.40	22.96	.4297	577.7	5751-02
106	135.00	60000-01	872.00	.3407	.4133	.4626	59.31	20.21	.4305	578.9	5722-02
106	135.00	70000-01	873.00	.3199	.3882	.4346	59.20	18.94	.4316	580.3	4564-02
106	135.00	80000-01	874.00	.2773	.3365	.3767	59.21	16.42	.4315	580.2	4130-02
106	135.00	10000+00	875.00	.2339	.2937	.3175	59.32	13.87	.4305	578.8	3481-02
106	135.00	15000	876.00	.1322	.1604	.1795	59.30	7.841	.4307	579.1	1859-02
106	135.00	20000	877.00	.6448-01	.7820-01	.8754-01	59.26	3.820	.4310	579.6	5917-03
106	135.00	35000	878.00	.3813-01	.4622-01	.5170-01	59.52	2.270	.4286	576.5	5273-03
106	135.00	40000	879.00	.3757-01	.4553-01	.5093-01	59.54	2.237	.4284	575.5	5288-03
106	135.00	50000	880.00	.3536-01	.4302-01	.4806-01	60.12	2.138	.4230	563.1	5321-03
106	135.00	55000	881.00	.3523-01	.4259-01	.4754-01	60.48	2.132	.4196	564.5	5230-03
106	135.00	60000	882.00	.3632-01	.4389-01	.4910-01	59.57	2.157	.4281	572.3	5357-03
106	135.00	65000	883.00	.3612-01	.4379-01	.4898-01	59.49	2.149	.4288	573.6	5374-03
106	135.00	70000	884.00	.3600-01	.4242-01	.4741-01	59.94	2.101	.4247	571.1	5355-03
106	135.00	75000	885.00	.3621-01	.4373-01	.4830-01	60.52	2.190	.4193	573.8	5363-03
106	135.00	80000	886.00	.3417-01	.4135-01	.4620-01	60.02	2.051	.4239	573.0	5358-03
106	135.00	90000	893.00	.3353-01	.4063-01	.4535-01	60.34	2.035	.4194	573.0	5358-03
106	154.92	1468-01	914.00	.4297	.5211	.5831	59.39	25.52	.4289	583.0	5353-03
106	180.00	25000-01	933.00	.5555	.6735	.7536	59.44	25.52	.4283	583.0	5353-03
106	180.00	30000-01	934.00	.4487	.5467	.6138	56.41	25.31	.4423	583.0	5353-03
106	180.00	40000-01	600.00	.3923	.4785	.5375	56.13	22.02	.4449	583.0	5353-03
106	180.00	50000-01	601.00	.3297	.4297	.4826	56.05	19.74	.4437	583.0	5353-03
106	180.00	60000-01	602.00	.3321	.4005	.4502	55.98	18.37	.4461	583.0	5353-03
106	180.00	70000-01	603.00	.3282	.4005	.4502	55.92	17.72	.4461	583.0	5353-03
106	180.00	80000-01	604.00	.3166	.3952	.4342	56.03	12.40	.4461	583.0	5353-03
106	180.00	10000-01	605.00	.2214	.2711	.3036	56.04	7.273	.4461	583.0	5353-03
106	180.00	15000	606.00	.1298	.1527	.1780	56.04	3.603	.4461	583.0	5353-03
106	180.00	20000	607.00	.6448-01	.7970-01	.8845-01	56.96	2.681	.4461	583.0	5353-03
106	180.00	25000	608.00	.5145-01	.6278-01	.7056-01	56.00	2.417	.4461	583.0	5353-03
106	180.00	30000	609.00	.314-01	.3264-01	.3516-01	56.02	2.147	.4461	583.0	5353-03
106	180.00	35000	610.00	.2769-01	.4321-01	.5186-01	56.57	2.081	.4461	583.0	5353-03
106	180.00	40000	611.00	.2531-01	.4098-01	.5051-01	56.37	2.038	.4461	583.0	5353-03
106	180.00	45000	612.00	.2514-01	.4403-01	.4943-01	56.40	2.045	.4461	583.0	5353-03
106	180.00	50000	613.00	.2514-01	.4427-01	.4971-01	56.32	2.045	.4461	583.0	5353-03

ORIGINAL PAGE IS  
OF POOR QUALITY

DATE 05 MAR 76

AMES 3.5-211 1H-18

ARC3.5-211(1H-18)ET /NIPPLE/CLEAN

EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
105	180.00	.42500	624.00	.3500-01	.4498-01	.5051-01	56.32	2.079	.4431	581.4	.5451-03
105	180.00	.45000	628.00	.3510-01	.4277-01	.4802-01	56.37	1.979	.4426	580.7	.5183-03
105	180.00	.48000	632.00	.3638-01	.4432-01	.4975-01	56.42	2.052	.4422	580.2	.5371-03
105	180.00	.50000	634.00	.3438-01	.4185-01	.4694-01	56.70	1.949	.4394	576.6	.5072-03
105	180.00	.55000	635.00	.3628-01	.4413-01	.4947-01	56.93	2.066	.4373	573.7	.5349-03
105	180.00	.60000	636.00	.3552-01	.4327-01	.4857-01	56.43	2.004	.4420	580.0	.5244-03
105	180.00	.65000	637.00	.3577-01	.4358-01	.4892-01	56.42	2.018	.4421	580.1	.5282-03
105	180.00	.70000	638.00	.3562-01	.4335-01	.4863-01	56.72	2.020	.4393	576.4	.5255-03
105	180.00	.75000	639.00	.3583-01	.4356-01	.4882-01	57.06	2.045	.4360	572.1	.5281-03
105	180.00	.80000	640.00	.3522-01	.4285-01	.4806-01	56.81	2.001	.4384	575.3	.5194-03
105	180.00	.90000	646.00	.3412-01	.4143-01	.4641-01	57.30	1.955	.4338	569.1	.5024-03
105	191.25	.40000	658.00	.3658-01	.4460-01	.5009-01	56.23	2.057	.4440	582.6	.5405-03
105	191.25	.40000	672.00	.3623-01	.4412-01	.4951-01	56.59	2.050	.4405	578.0	.5348-03
105	191.25	.60000	673.00	.3645-01	.4442-01	.4988-01	56.33	2.053	.4430	581.3	.5384-03
105	191.25	.70000	674.00	.3582-01	.4362-01	.4894-01	56.62	2.028	.4402	577.7	.5286-03
105	191.25	.90000	681.00	.3450-01	.4191-01	.4696-01	57.18	1.972	.4349	570.6	.5082-03
105	217.70	.50000-01	715.00	.4006	.4887	.5492	55.05	22.45	.4457	584.8	.5222-02
105	217.70	.70000-01	716.00	.3121	.3809	.4280	55.99	17.47	.4463	585.6	.4615-02
105	217.70	.10000-00	717.00	.2428	.2964	.3331	56.00	13.60	.4462	585.5	.3591-02
105	217.70	.15000	718.00	.1241	.1514	.1702	56.02	6.953	.4459	585.1	.1835-02
105	217.70	.20000	719.00	.6126-01	.7477-01	.8404-01	55.95	3.427	.4467	585.1	.9059-03
105	217.70	.30000	720.00	.3656-01	.4454-01	.4999-01	56.44	2.063	.4419	579.9	.5397-03
105	217.70	.35000	721.00	.3737-01	.4563-01	.5129-01	55.89	2.089	.4472	586.8	.5328-03
105	217.70	.50000	723.00	.3630-01	.4424-01	.4966-01	56.40	2.047	.4424	580.4	.5361-03
105	217.70	.60000	724.00	.3600-01	.4391-01	.4933-01	56.14	2.021	.4448	583.6	.5321-03
105	217.70	.70000	725.00	.3620-01	.4410-01	.4950-01	56.46	2.044	.4417	579.6	.5345-03
105	217.70	.80000	726.00	.3506-01	.4273-01	.4797-01	56.38	1.977	.4426	580.7	.5178-03
105	217.70	.87000	727.00	.3494-01	.4257-01	.4778-01	56.45	1.972	.4418	579.7	.5159-03



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(RMBF18)

## EXTERNAL TANK

ARC3.5-211(1H48)ET /NIPPLE/CLEAN

EXT TANK

## PARAMETRIC DATA

ALPHA = -5.000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEC.	BETA DEC.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. F	RHO SLUG/ FT3	VINF FT/SEC	SCALE
107	-5.000	.0000	5.300	4.958	405.7	1308.	319.7	.5349	201.3	.2230-03	3686.	.1750-01
108	-5.000	.0000	5.300	4.817	405.8	1333.	325.9	.5343	205.2	.2185-03	3721.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TN DEG. R	STN NO R=0.9
108	.00000	.30000-02	730.00	.3084	.3744	.4193	59.66	18.40	.4330	588.1	.4622-02
108	.00000	.10000-01	731.00	.6989-01	.8472-01	.9477-01	60.15	4.204	.4286	582.0	.1046-02
108	.00000	.15000-01	732.00	.4268-01	.5168-01	.5777-01	60.45	2.580	.4258	578.3	.6383-03
108	.00000	.25000-01	734.00	.1844	.2228	.2486	61.22	11.29	.4188	568.7	.2752-02
108	.00000	.30000-01	735.00	.4404	.5317	.5932	61.32	27.00	.4178	567.5	.6570-02
108	.00000	.40000-01	737.00	.3471	.4194	.4681	61.14	21.22	.4195	569.8	.5181-02
108	.00000	.45000-01	738.00	.3521	.4256	.4752	60.98	21.47	.4209	571.7	.5258-02
108	.00000	.60000-01	739.00	.3255	.3937	.4398	60.79	19.79	.4227	574.0	.4863-02
108	.00000	.70000-01	740.00	.2616	.3163	.3534	60.79	15.90	.4226	574.0	.3908-02
108	.00000	.80000-01	741.00	.2307	.2790	.3117	60.78	14.02	.4228	574.2	.3447-02
108	.00000	.10000+00	742.00	.1761-01	.2149-01	.2415-01	58.22	1.025	.4463	606.2	.2651-03
108	.00000	.12500	743.00	.1349	.1530	.1820	61.02	8.231	.4205	571.1	.2014-02
108	.00000	.15000	744.00	.1054	.1273	.1421	61.15	6.442	.4194	569.6	.1573-02
108	.00000	.17500	745.00	.6308-01	.7619-01	.8503-01	61.21	3.861	.4188	568.6	.9414-03
108	.00000	.20000	746.00	.4262-01	.5147-01	.5743-01	61.28	2.612	.4181	567.9	.6359-03
108	.00000	.21500	747.00	.3549-01	.4285-01	.4781-01	61.32	2.176	.4178	567.4	.5295-03
108	.00000	.24000	749.00	.2654-01	.3200-01	.3568-01	61.65	1.636	.4149	563.3	.3955-03
108	.00000	.25000	750.00	.2002-01	.2411-01	.2685-01	62.17	1.245	.4100	556.9	.2980-03
108	.00000	.30000	751.00	.2256-01	.2769-01	.3084-01	61.80	1.419	.4134	561.4	.3420-03
108	.00000	.35000	752.00	.2533-01	.3055-01	.3406-01	61.66	1.562	.4146	563.2	.3776-03
108	.00000	.40000	753.00	.2540-01	.3063-01	.3414-01	61.76	1.569	.4138	562.0	.3785-03
107	.00000	.50000	754.00	.2578-01	.3123-01	.3491-01	59.16	1.525	.4265	568.2	.3812-03
107	.00000	.60000	755.00	.2231-01	.2769-01	.3098-01	58.69	1.339	.4309	574.1	.3377-03
107	.00000	.70000	755.00	.2274-01	.2755-01	.3081-01	59.10	1.344	.4271	569.0	.3362-03
107	.00000	.80000	757.00	.2150-01	.2609-01	.2919-01	58.74	1.263	.4305	573.5	.3183-03
107	.00000	.90000	758.00	.2151-01	.2602-01	.2908-01	59.37	1.276	.4245	565.6	.3175-03

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PLN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	ODOT BTU/ F12SEC	HW/HT	TW DEG. R	STN NO R=0.9
107	67.500	27000	770.00	3093-01	3736-01	4169-01	59.99	1.856	4187	557.8	4562-03
107	67.500	30000	772.00	3160-01	3824-01	4273-01	59.39	1.877	4243	563.3	4669-03
107	67.500	32000	774.00	3185-01	3859-01	4315-01	59.11	1.883	4270	568.8	4710-03
107	67.500	33000	776.00	3149-01	3816-01	4267-01	59.09	1.864	4273	569.3	4657-03
107	67.500	35000	780.00	3154-01	3821-01	4273-01	59.09	1.871	4273	569.1	4664-03
108	67.500	36000	783.00	3181-01	3832-01	4270-01	61.96	1.978	4119	559.5	4737-03
108	67.500	38000	786.00	3188-01	3840-01	4277-01	62.06	1.956	4120	558.2	4746-03
108	67.500	40000	788.00	3157-01	3804-01	4238-01	61.95	1.956	4108	559.5	4702-03
108	67.500	50000	789.00	3307-01	3983-01	4436-01	62.09	2.053	4134	557.9	4923-03
108	67.500	60000	790.00	3187-01	3844-01	4286-01	61.63	1.964	4134	563.5	4751-03
108	67.500	70000	791.00	2666-01	3214-01	3582-01	61.80	1.648	4159	564.9	4326-03
108	67.500	80000	792.00	2902-01	3501-01	3904-01	61.53	1.785	4109	558.1	3887-03
108	67.500	90000	793.00	2611-01	3145-01	3503-01	62.07	1.621	4339	578.1	6030-02
107	90.000	40000-01	995.00	4059	4942	5537	58.37	23.75	4360	580.8	5048-02
107	90.000	50000-01	996.00	3404	4138	4637	58.16	19.80	4367	581.7	4646-02
107	90.000	60000-01	997.00	3132	3808	4269	58.08	18.19	4370	582.2	4668-02
107	90.000	70000-01	998.00	3146	3826	4289	58.04	18.26	4370	582.2	4668-02
107	90.000	80000-01	999.00	2726	3315	3716	58.07	15.83	4368	581.9	4044-02
107	90.000	10000-00	990.00	2301	2796	3133	58.25	13.40	4351	579.6	3411-02
107	90.000	15000	991.00	1296	1573	1762	58.41	7.567	4336	577.7	1920-02
107	90.000	20100	913.00	4217-01	5117-01	5727-01	58.68	2.475	4311	574.3	6244-03
107	90.000	24000	814.00	3639-01	4409-01	4932-01	59.02	2.148	4278	569.9	5382-03
107	90.000	25000	815.00	3154-01	3814-01	4259-01	59.68	1.882	4216	561.7	4656-03
107	90.000	27000	816.00	3950-01	4772-01	5325-01	59.95	2.368	4191	568.3	5827-03
107	90.000	29000	817.00	3833-01	4643-01	5187-01	59.56	2.286	4228	563.2	5669-03
107	90.000	30000	818.00	3941-01	4652-01	5201-01	59.21	2.275	4261	567.6	5679-03
107	90.000	32000	820.00	2834-01	4647-01	5198-01	58.94	2.259	4286	571.0	5672-03
107	90.000	33000	822.00	3835-01	4647-01	5198-01	59.01	2.262	4277	569.8	5667-03
107	90.000	35000	826.00	3832-01	4643-01	5193-01	59.03	2.210	4272	569.1	5531-03
107	90.000	38000	834.00	3740-01	4531-01	5067-01	59.09	2.149	4275	569.5	5362-03
107	90.000	40000	835.00	3799-01	4538-01	5139-01	59.34	2.254	4249	566.0	5085-03
107	90.000	50000	836.00	3434-01	4167-01	4665-01	58.62	2.013	4316	574.9	5085-03
107	90.000	60000	837.00	3488-01	4228-01	4729-01	58.98	2.057	4282	570.5	5160-03
107	90.000	70000	838.00	3301-01	4006-01	4485-01	58.59	1.934	4319	575.4	4889-03
107	90.000	80000	839.00	3106-01	3759-01	4200-01	59.39	1.844	4244	565.4	4589-03
107	112.50	27000	842.00	4275-01	5160-01	5756-01	60.16	2.572	4171	555.7	6302-03
107	112.50	30000	843.00	4737-01	5740-01	6420-01	59.01	2.795	4279	570.1	7006-03
107	112.50	33000	844.00	4543-01	5513-01	6173-01	58.58	2.661	4320	575.5	6727-03
107	112.50	35000	845.00	4490-01	5450-01	6102-01	58.55	2.629	4323	575.9	6650-03
107	112.50	37000	846.00	4405-01	5346-01	5986-01	58.58	2.580	4320	575.5	6524-03
107	112.50	40000	847.00	4256-01	5164-01	5781-01	58.62	2.495	4316	575.0	6302-03
107	112.50	45000	848.00	4176-01	5068-01	5674-01	58.58	2.446	4319	575.4	6184-03

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(R08F18)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
107	112.50	.50000	849.00	.4277-01	.5182-01	.5795-01	59.06	2.526	.4274	569.4	.6325-03
107	112.50	.55000	850.00	.4053-01	.4906-01	.5483-01	59.35	2.406	.4248	565.9	.5989-03
107	112.50	.60000	851.00	.3970-01	.4822-01	.5402-01	58.36	2.317	.4340	578.2	.5884-03
107	112.50	.65000	852.00	.3883-01	.4718-01	.5287-01	58.21	2.260	.4354	580.1	.5756-03
107	112.50	.70000	853.00	.4127-01	.5007-01	.5604-01	58.70	2.423	.4308	574.0	.6110-03
107	112.50	.75000	854.00	.4050-01	.4903-01	.5480-01	59.32	2.403	.4250	566.2	.5985-03
107	112.50	.80000	855.00	.3910-01	.4825-01	.5480-01	58.57	2.232	.4320	575.6	.5643-03
107	112.50	.90000	856.00	.3771-01	.4567-01	.5106-01	59.20	2.233	.4261	567.7	.5573-03
107	135.00	.40000-01	870.00	.3938	.4785	.5363	58.19	22.91	.4356	580.3	.5838-02
107	135.00	.50000-01	871.00	.3478	.4232	.4747	57.84	20.11	.4390	584.8	.5162-02
107	135.00	.60000-01	873.00	.3448	.4193	.4713	57.61	19.87	.4411	587.6	.5122-02
107	135.00	.70000-01	874.00	.3117	.3796	.4260	57.63	17.96	.4409	587.4	.4630-02
107	135.00	.80000-01	874.00	.2563	.3242	.3637	57.74	15.36	.4399	586.0	.3954-02
107	135.00	.10000+00	875.00	.1727	.2102	.2358	57.77	9.977	.4397	585.6	.2564-02
107	135.00	.15000	876.00				57.76	5.114	.4397	585.8	.1315-02
107	135.00	.20000	877.00	.6954-01	.1078	.1209	57.76	5.114	.4397	585.8	.1315-02
107	135.00	.35000	878.00	.5133-01	.6241-01	.6997-01	58.06	2.980	.4369	582.0	.7614-03
107	135.00	.40000	879.00	.4910-01	.5970-01	.6692-01	58.08	2.852	.4367	581.8	.7283-03
107	135.00	.50000	880.00	.4493-01	.5448-01	.6096-01	58.84	2.644	.4295	572.2	.6649-03
107	135.00	.55000	881.00	.4500-01	.5448-01	.6091-01	59.25	2.666	.4257	567.1	.6651-03
107	135.00	.60000	882.00	.4651-01	.5554-01	.6337-01	58.12	2.703	.4363	581.2	.6891-03
107	135.00	.65000	883.00	.4557-01	.5543-01	.6214-01	57.99	2.643	.4375	582.9	.6751-03
107	135.00	.70000	884.00	.4411-01	.5353-01	.5994-01	58.59	2.585	.4319	575.4	.6533-03
107	135.00	.75000	885.00	.4705-01	.5395-01	.5925	59.25	2.788	.4257	567.1	.6954-03
107	135.00	.80000	886.00	.4437-01	.5384-01	.6028-01	58.61	2.600	.4317	575.1	.6570-03
107	135.00	.90000	893.00	.4112-01	.5343-01	.5974-01	59.19	2.612	.4262	567.8	.6522-03
107	135.00	.94500	914.00	.2058-01	.2944-01	.2790-01	58.98	1.214	.4282	570.5	.3044-03
107	180.00	.25000-01	983.00	.5670	.7735	.7735	57.91	32.83	.4383	583.9	.5414-02
107	180.00	.30000-01	984.00	.5523	.6339	.7669	57.96	32.59	.4378	583.3	.5343-02
107	180.00	.40000-01	600.00	.4159	.5043	.5533	60.71	25.31	.4234	575.1	.6230-02
107	180.00	.50000-01	601.00	.3554	.4380	.5233	60.36	23.33	.4266	579.4	.5780-02
107	180.00	.60000-01	602.00	.3802	.4607	.5152	60.26	22.92	.4275	580.6	.5690-02
107	180.00	.70000-01	603.00	.3531	.4425	.4949	60.19	21.40	.4282	581.6	.5464-02
107	180.00	.80000-01	604.00	.3555	.4438	.4819	60.20	15.24	.4291	581.5	.5320-02
107	180.00	.90000+00	605.00	.2531	.3557	.3730	60.23	10.93	.4281	581.4	.5287-02
107	180.00	.15000	606.00	.1915	.2500	.2460	60.20	6.001	.4281	581.4	.5287-02
107	180.00	.20000	607.00	.1090	.1213	.1357	60.20	6.001	.4281	581.4	.5287-02
107	180.00	.30000	608.00	.8935-01	.9904-01	.1097	60.23	4.853	.4297	584.0	.5439-02
107	180.00	.40000	609.00	.6917-01	.9397-01	.9394-01	60.06	4.154	.4294	583.6	.1036-02
107	180.00	.50000	610.00	.5735-01	.7919-01	.7930-01	60.78	3.522	.4288	574.2	.6659-03
107	180.00	.60000	611.00	.5232-01	.6335-01	.7091-01	60.49	3.165	.4255	577.3	.5344-03
107	180.00	.70000	612.00	.5015-01	.6072-01	.6886-01	60.51	3.035	.4253	577.3	.5344-03
107	180.00	.80000	613.00	.5111-01	.6189-01	.6919-01	60.44	3.089	.4259	577.5	.7544-03
107	180.00	.90000	624.00	.5179-01	.6271-01	.7010-01	60.46	3.131	.4258	576.2	.7745-03

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AMES 3.5-211 11H8

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(RNF18)

RUN NUMBER	PHI	X/L	TC NO	ARC3.5-211(11H8)ET /NIPPLE/CLEAN				EXT TANK		HM/HT	TW DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC				
108	180.00	.45000	628.00	.4900-01	.5931-01	.6628-01	60.56	2.967	.4248	576.9	.7325-03	
108	180.00	.48000	632.00	.5104-01	.6175-01	.6899-01	60.70	3.098	.4235	575.1	.7627-03	
108	180.00	.50000	634.00	.4807-01	.5807-01	.6480-01	61.20	2.942	.4189	569.0	.7175-03	
108	180.00	.55000	635.00	.5169-01	.6236-01	.6954-01	61.54	3.181	.4157	564.6	.7707-03	
108	180.00	.60000	636.00	.5188-01	.6276-01	.7011-01	60.75	3.152	.4230	574.5	.7752-03	
108	180.00	.65000	637.00	.5167-01	.6250-01	.6982-01	60.75	3.139	.4231	574.6	.7720-03	
108	180.00	.70000	638.00	.5107-01	.6168-01	.6883-01	61.24	3.128	.4185	568.4	.7621-03	
108	180.00	.75000	639.00	.5339-01	.6437-01	.7175-01	61.76	3.297	.4138	562.0	.7955-03	
108	180.00	.80000	640.00	.5270-01	.6363-01	.7100-01	61.30	3.230	.4180	567.7	.7862-03	
108	180.00	.90000	646.00	.5004-01	.6032-01	.6723-01	61.82	3.094	.4132	561.2	.7455-03	
108	191.25	.40000	658.00	.5166-01	.6257-01	.6996-01	60.36	3.118	.4267	579.5	.7728-03	
108	191.25	.50000	672.00	.4976-01	.6012-01	.6711-01	61.11	3.041	.4197	570.1	.7428-03	
108	191.25	.60000	673.00	.5205-01	.6299-01	.7037-01	60.69	3.159	.4236	575.3	.7780-03	
108	191.25	.70000	674.00	.5281-01	.6379-01	.7119-01	61.19	3.231	.4190	569.1	.7881-03	
108	217.70	.50000-01	715.00	.3920	.4750	.5313	60.22	23.61	.4279	581.1	.5866-02	
108	217.70	.70000-01	716.00	.3634	.4404	.4926	60.19	21.87	.4282	581.5	.5438-02	
108	217.70	.10000-00	717.00	.2849	.3453	.3862	60.21	17.15	.4280	581.3	.4264-02	
108	217.70	.15000	718.00	.1669	.2022	.2262	60.24	10.05	.4277	581.0	.2498-02	
108	217.70	.20000	719.00	.8526-01	.1034	.1157	60.03	5.118	.4297	583.5	.1277-02	
108	217.70	.30000	720.00	.5176-01	.6261-01	.6994-01	60.75	3.144	.4230	574.5	.7734-03	
108	217.70	.35000	721.00	.5033-01	.6102-01	.6827-01	60.06	3.023	.4294	583.2	.7535-03	
108	217.70	.50000	723.00	.4907-01	.5930-01	.6620-01	61.02	2.994	.4205	571.2	.7326-03	
108	217.70	.55000	724.00	.4857-01	.5876-01	.6565-01	60.72	2.949	.4233	574.9	.7259-03	
108	217.70	.60000	725.00	.5047-01	.6096-01	.6803-01	61.23	3.090	.4187	568.6	.7532-03	
108	217.70	.80000	726.00	.4914-01	.5936-01	.6625-01	61.19	3.007	.4190	569.1	.7334-03	
108	217.70	.87000	727.00	.4731-01	.5715-01	.6379-01	61.14	2.892	.4195	569.7	.7061-03	

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ARC3.5-211(1448)ET /NIPPLE/CLEAN

EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = -10.00 BETA = .0000 RV/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
109	-10.00	.0003	5.300	4.895	406.3	1320.	322.7	.5354	203.2	.2210-C	3703.	.1750-01
110	-10.00	.0003	5.300	5.092	406.7	1290.	315.0	.5367	198.4	.2270-C	3659.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
109	.00000	.30000-02	730.00	.2881	.3509	.3939	58.15	16.75	.4419	594.3	.4302-02
109	.00000	.10000-01	731.00	.8582-01	.1044	.1170	58.60	5.029	.4377	588.7	.1280-02
109	.00000	.15000-01	732.00	.8276-01	.1066	.1212	58.87	4.873	.4351	585.3	.1233-02
109	.00000	.25000-01	734.00	.1484	.1798	.2027	59.58	8.873	.4286	576.5	.2206-02
109	.00000	.30000-01	735.00	.2311	.3042	.3403	59.67	14.98	.4277	575.3	.3732-02
109	.00000	.40000-01	737.00	.2404	.2914	.3261	59.53	14.31	.4291	577.1	.3575-02
109	.00000	.45000-01	733.00	.2394	.2904	.3250	59.39	14.22	.4303	578.8	.3562-02
109	.00000	.50000-01	739.00	.2154	.2614	.2927	59.21	12.75	.4321	581.1	.3236-02
109	.00000	.70000-01	740.00	.1944	.2350	.2642	59.20	11.51	.4322	581.3	.2834-02
109	.00000	.80000-01	741.00	.1715	.2032	.2331	59.18	10.15	.4323	581.4	.2333-02
109	.00000	.10000+00	742.00	.1224	.1485	.1663	59.29	7.259	.4312	580.0	.1822-02
109	.00000	.15000	743.00	.8380-01	.1016	.1137	59.42	4.979	.4301	578.5	.1247-02
109	.00000	.15000	743.00	.6470-01	.7843-01	.8775-01	59.54	3.852	.4289	575.9	.3521-03
109	.00000	.17500	745.00	.3942-01	.4778-01	.5345-01	59.58	2.349	.4286	576.4	.5861-03
109	.00000	.20000	746.00	.2579-01	.3125-01	.3495-01	59.64	1.538	.4280	575.6	.3633-03
109	.00000	.21500	747.00	.2105-01	.2550-01	.2974-01	59.72	1.311	.4273	574.8	.3263-03
109	.00000	.23000	749.00	.1730-01	.2103-01	.2351-01	59.85	1.039	.4261	573.1	.2590-03
109	.00000	.24000	749.00	.1711-01	.2071-01	.2314-01	60.07	1.028	.4241	573.4	.2541-03
109	.00000	.26000	750.00	.1206-01	.1565-01	.1748-01	60.55	.7849	.4196	564.4	.1922-03
109	.00000	.31000	751.00	.9432-02	.1145-01	.1279-01	60.19	.5695	.4230	568.9	.1404-03
109	.00000	.35000	752.00	.9384-02	.1206-01	.1348-01	59.95	.5973	.4252	571.9	.1480-03
109	.00000	.40000	753.00	.1645-01	.1991-01	.2225-01	59.99	.9868	.4248	571.3	.2443-03
109	.00000	.50000	755.00	.2358-01	.2656-01	.3211-01	57.45	1.355	.4350	571.0	.3461-03
109	.00000	.60000	755.00	.2740-01	.3335-01	.3741-01	56.97	1.561	.4396	577.1	.4036-03
109	.00000	.70000	756.00	.3460-01	.4211-01	.4719-01	57.41	1.989	.4354	571.6	.5086-03
109	.00000	.80000	757.00	.3583-01	.4439-01	.5035-01	57.05	2.105	.4387	575.0	.5420-03

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AMES 3.5-211 IH48

ARC3.5-211(IH48)ET

/NIPPLE/CLEAN

EXT TANK

PLN NUMBER	PHI	X/L	TC NO	H/HREF P=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
110	00000	90000	758.00	3813-01	4629-01	5184-01	57.67	2.199	4328	568.2	5591-03
110	67.500	27000	770.00	2178-01	2640-01	2954-01	58.13	1.266	4285	562.6	3190-03
110	67.500	30000	772.00	2753-01	3345-01	3748-01	57.45	1.582	4349	571.0	4040-03
110	67.500	32000	774.00	2622-01	3189-01	3576-01	57.11	1.497	4382	575.2	3851-03
110	67.500	33000	776.00	2568-01	3124-01	3504-01	57.05	1.465	4387	576.0	3772-03
110	67.500	35000	780.00	2472-01	3008-01	3374-01	57.06	1.411	4387	575.9	3632-03
109	67.500	35000	783.00	2436-01	2947-01	3292-01	60.19	1.467	4229	568.8	3616-03
109	67.500	38000	786.00	2410-01	2913-01	3254-01	60.32	1.453	4217	567.2	3575-03
109	67.500	40000	788.00	2428-01	2937-01	3281-01	60.19	1.462	4229	569.8	3604-03
109	67.500	45000	789.00	1986-01	2400-01	2680-01	60.44	1.200	4206	565.7	2946-03
109	67.500	60000	790.00	1703-01	2063-01	2306-01	59.85	1.019	4261	573.0	2530-03
109	67.500	70000	791.00	1532-01	1975-01	2207-01	60.07	.9806	4240	570.3	2424-03
109	67.500	80000	792.00	1164-01	1411-01	1577-01	59.72	.6952	4273	574.7	1730-03
109	67.500	90000	793.00	1039-01	1256-01	1402-01	60.36	.6269	4213	565.7	1541-03
110	90.000	90000-01	985.00	4084	4985	5602	56.24	22.97	4465	586.2	6016-02
110	90.000	90000-01	986.00	4022	4914	5526	55.99	22.52	4489	589.3	5929-02
110	90.000	90000-01	987.00	3808	4655	5238	55.84	21.27	4504	591.2	5617-02
110	90.000	90000-01	988.00	3702	4526	5093	55.79	20.65	4508	591.8	5461-02
110	90.000	90000-01	989.00	3116	3810	4287	55.80	17.39	4507	591.7	4597-02
110	90.000	90000-01	990.00	2525	3085	3470	55.96	14.13	4491	589.7	3723-02
110	90.000	90000-01	991.00	1389	1697	1908	56.12	7.797	4477	587.8	2048-02
110	90.000	90100	817.00	4538-01	5532-01	6211-01	56.58	2.568	4432	581.9	6677-03
110	90.000	90100	818.00	4044-01	4922-01	5521-01	57.01	2.368	4392	576.5	5942-03
110	90.000	90100	819.00	3654-01	4435-01	4956-01	57.72	2.109	4323	567.6	5357-03
110	90.000	90100	819.00	4021-01	4876-01	5455-01	58.05	2.334	4292	563.5	5890-03
110	90.000	90100	819.00	3971-01	4822-01	5401-01	57.61	2.288	4334	569.0	5824-03
110	90.000	90100	819.00	3879-01	4716-01	5288-01	57.22	2.219	4371	573.9	5695-03
110	90.000	90100	820.00	3769-01	4588-01	5148-01	56.88	2.144	4404	578.1	5539-03
110	90.000	90100	820.00	3720-01	4528-01	5079-01	56.96	2.119	4396	577.2	5466-03
110	90.000	90100	826.00	3595-01	4364-01	4897-01	56.93	2.041	4399	577.6	5269-03
110	90.000	90100	829.00	3577-01	4354-01	4884-01	56.96	2.037	4397	577.2	5256-03
110	90.000	90100	832.00	3479-01	4234-01	4750-01	56.97	1.982	4396	577.1	5112-03
110	90.000	90100	834.00	3296-01	4012-01	4501-01	56.93	1.876	4399	577.6	4844-03
110	90.000	90100	835.00	3233-01	3930-01	4404-01	57.38	1.856	4356	571.8	4746-03
110	90.000	90100	835.00	2759-01	3363-01	3777-01	57.05	1.560	4436	582.4	4060-03
110	90.000	90100	836.00	2681-01	3262-01	3559-01	57.05	1.530	4387	576.0	3929-03
110	90.000	90100	838.00	2488-01	3033-01	3406-01	56.55	1.407	4435	582.3	3661-03
110	90.000	90100	839.00	2314-01	2812-01	3150-01	57.48	1.330	4436	570.6	3395-03
110	112.50	90000	842.00	5271-01	6386-01	7141-01	58.25	3.070	4273	561.0	7715-03
110	112.50	90000	843.00	5436-01	6617-01	7422-01	57.03	3.101	4309	576.3	7990-03
110	112.50	90000	844.00	5120-01	6243-01	7012-01	56.49	2.892	4441	583.0	7536-03
110	112.50	90000	845.00	5035-01	6141-01	6899-01	56.42	2.841	4448	584.0	7412-03
110	112.50	90000	846.00	4928-01	6011-01	6752-01	56.43	2.781	4447	583.8	7255-03

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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	EXT TANK OOT BTU/ FT2SEC	HA/HT	TH DEG. R	STN NO R=0.9
110	112.50	40000	847.00	4697-01	5727-01	6433-01	56.46	2.652	4444	583.4	6913-03
110	112.50	45000	848.00	4698-01	5730-01	6437-01	56.45	2.652	4445	583.6	6916-03
110	112.50	50000	849.00	4760-01	5791-01	6495-01	57.09	2.717	4384	575.6	6992-03
110	112.50	55000	850.00	4391-01	5335-01	5979-01	57.41	2.521	4353	571.5	6443-03
110	112.50	60000	851.00	4203-01	5130-01	5765-01	55.25	2.364	4464	586.1	6191-03
110	112.50	65000	852.00	4116-01	5027-01	5652-01	56.08	2.308	4480	588.2	6066-03
110	112.50	70000	853.00	4349-01	5299-01	5947-01	56.74	2.468	4418	580.0	6396-03
110	112.50	75000	854.00	4301-01	5226-01	5855-01	57.44	2.470	4350	571.1	6311-03
110	112.50	80000	855.00	3982-01	4854-01	5451-01	56.57	2.253	4434	582.1	5559-03
110	112.50	85000	856.00	4060-01	4936-01	5533-01	57.31	2.327	4363	572.8	5560-03
110	113.00	90000	870.00	5300	6470	7273	56.18	29.78	4470	586.9	7809-02
110	113.00	95000-01	871.00	5433	6841	7472	55.85	30.34	4503	591.1	8013-02
110	113.00	50000-01	871.00	5432	6031	6788	55.72	27.48	4514	592.7	7277-02
110	113.00	60000-01	872.00	4932	5469	6157	55.59	24.85	4527	594.3	6598-02
110	113.00	70000-01	873.00	4470	4725	5319	55.60	21.47	4526	594.2	5700-02
110	113.00	80000-01	874.00	3961	3944	4439	55.69	17.96	4518	593.1	4758-02
110	113.00	10000-00	875.00	3224	2412	2715	55.70	10.99	4516	592.9	2910-02
110	113.00	15000	876.00	1972	1317	1483	55.94	6.000	4494	592.9	1589-02
110	113.00	20000	877.00	1077	864-01	9070-01	55.93	3.691	4495	590.0	970-03
110	113.00	25000	878.00	5599-01	7936-01	8264-01	56.87	3.632	4495	590.1	9576-03
110	113.00	30000	879.00	6494-01	7454-01	8264-01	56.87	3.491	4495	590.1	9576-03
110	113.00	35000	880.00	6122-01	7229-01	8215-01	57.30	3.455	4384	592.9	933-03
110	113.00	40000	881.00	6013-01	7153-01	8270-01	55.98	3.355	4490	593.5	933-03
110	113.00	45000	882.00	6013-01	7153-01	8270-01	55.98	3.255	4504	593.5	933-03
110	113.00	50000	883.00	6013-01	7153-01	8270-01	55.98	3.158	4430	593.5	933-03
110	113.00	55000	884.00	6013-01	7153-01	8270-01	55.98	3.057	4430	593.5	933-03
110	113.00	60000	885.00	6013-01	7153-01	8270-01	55.98	2.957	4430	593.5	933-03
110	113.00	65000	886.00	6013-01	7153-01	8270-01	55.98	2.857	4430	593.5	933-03
110	113.00	70000	887.00	6013-01	7153-01	8270-01	55.98	2.757	4430	593.5	933-03
110	113.00	75000	888.00	6013-01	7153-01	8270-01	55.98	2.657	4430	593.5	933-03
110	113.00	80000	889.00	6013-01	7153-01	8270-01	55.98	2.557	4430	593.5	933-03
110	113.00	85000	890.00	6013-01	7153-01	8270-01	55.98	2.457	4430	593.5	933-03
110	113.00	90000	891.00	6013-01	7153-01	8270-01	55.98	2.357	4430	593.5	933-03
110	113.00	95000	892.00	6013-01	7153-01	8270-01	55.98	2.257	4430	593.5	933-03
110	113.00	100000	893.00	6013-01	7153-01	8270-01	55.98	2.157	4430	593.5	933-03
110	113.00	105000	894.00	6013-01	7153-01	8270-01	55.98	2.057	4430	593.5	933-03
110	113.00	110000	895.00	6013-01	7153-01	8270-01	55.98	1.957	4430	593.5	933-03
110	113.00	115000	896.00	6013-01	7153-01	8270-01	55.98	1.857	4430	593.5	933-03
110	113.00	120000	897.00	6013-01	7153-01	8270-01	55.98	1.757	4430	593.5	933-03
110	113.00	125000	898.00	6013-01	7153-01	8270-01	55.98	1.657	4430	593.5	933-03
110	113.00	130000	899.00	6013-01	7153-01	8270-01	55.98	1.557	4430	593.5	933-03
110	113.00	135000	900.00	6013-01	7153-01	8270-01	55.98	1.457	4430	593.5	933-03
110	113.00	140000	901.00	6013-01	7153-01	8270-01	55.98	1.357	4430	593.5	933-03
110	113.00	145000	902.00	6013-01	7153-01	8270-01	55.98	1.257	4430	593.5	933-03
110	113.00	150000	903.00	6013-01	7153-01	8270-01	55.98	1.157	4430	593.5	933-03
110	113.00	155000	904.00	6013-01	7153-01	8270-01	55.98	1.057	4430	593.5	933-03
110	113.00	160000	905.00	6013-01	7153-01	8270-01	55.98	0.957	4430	593.5	933-03
110	113.00	165000	906.00	6013-01	7153-01	8270-01	55.98	0.857	4430	593.5	933-03
110	113.00	170000	907.00	6013-01	7153-01	8270-01	55.98	0.757	4430	593.5	933-03
110	113.00	175000	908.00	6013-01	7153-01	8270-01	55.98	0.657	4430	593.5	933-03
110	113.00	180000	909.00	6013-01	7153-01	8270-01	55.98	0.557	4430	593.5	933-03
110	113.00	185000	910.00	6013-01	7153-01	8270-01	55.98	0.457	4430	593.5	933-03
110	113.00	190000	911.00	6013-01	7153-01	8270-01	55.98	0.357	4430	593.5	933-03
110	113.00	195000	912.00	6013-01	7153-01	8270-01	55.98	0.257	4430	593.5	933-03
110	113.00	200000	913.00	6013-01	7153-01	8270-01	55.98	0.157	4430	593.5	933-03
110	113.00	205000	914.00	6013-01	7153-01	8270-01	55.98	0.057	4430	593.5	933-03
110	113.00	210000	915.00	6013-01	7153-01	8270-01	55.98	0.000	4430	593.5	933-03





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AVES 3.5-211 IH48

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EXT TANK

PAGE 223

IR08F20)

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. F	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
111	.0000	.0000	5.300	4.783	404.5	1336.	326.7	.5325	205.7	.2172-03	3726.	.1730-01
112	.0000	.0000	5.300	4.771	405.7	1340.	327.9	.5339	205.5	.2170-03	3733.	.1732-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	H/H/HT	TN DEG. R	STN NO R=0.9
111	.00000	.5100-01	978.00	.4222	.5074	.5643	62.83	26.52	.4045	550.8	.6233-02
111	.00000	.18000-01	979.00	.3039	.3650	.4059	63.01	19.15	.4029	548.5	.4529-02
112	.00000	.40000-01	737.00	.1564	.2009	.2241	61.71	10.27	.4177	570.7	.2492-02
112	.00000	.45000-01	739.00	.1340	.1851	.2078	61.45	9.466	.4200	573.9	.2318-02
112	.00000	.60000-01	739.00	.1247	.1508	.1695	61.11	7.618	.4232	576.3	.1800-02
112	.00000	.70000-01	740.00	.1092	.1321	.1476	60.92	6.662	.4240	579.7	.1618-02
112	.00000	.80000-01	741.00	.1146	.1107	.1237	60.93	5.577	.4245	580.1	.1372-02
112	.00000	.90000-01	742.00	.1111	.8959-01	.1002	60.93	4.520	.4243	580.1	.1120-02
112	.00000	.10000-01	742.00	.5200-01	.6354-01	.7100-01	60.93	3.502	.4242	580.1	.0810-02
112	.00000	.15000	743.00	.4143-01	.5014-01	.5604-01	60.93	2.525	.4242	580.1	.0510-02
112	.00000	.17500	743.00	.2577-01	.3119-01	.3486-01	60.93	1.669	.4239	580.1	.0300-02
112	.00000	.20000	743.00	.1821-01	.2036-01	.2275-01	60.93	1.022	.4239	580.1	.0100-02
112	.00000	.21500	743.00	.1528-01	.1650-01	.2058-01	60.93	.9293	.4239	580.1	.0000-02
112	.00000	.23000	743.00	.1322-01	.1582-01	.1788-01	61.03	.7591	.4239	580.1	.0000-02
112	.00000	.24000	743.00	.1227-01	.1483-01	.1656-01	61.51	.7535	.4239	580.1	.0000-02
112	.00000	.25000	743.00	.9071-02	.1033-01	.1218-01	62.32	.5553	.4239	580.1	.0000-02
112	.00000	.30000	743.00	.5733-02	.1175-01	.1312-01	61.34	.5553	.4239	580.1	.0000-02
112	.00000	.35000	743.00	.1199-01	.1390-01	.1553-01	61.21	.5039	.4239	580.1	.0000-02
111	.00000	.40000	743.00	.1201-01	.1462-01	.1632-01	61.33	.7415	.4239	580.1	.0000-02
111	.00000	.50000	743.00	.3821-01	.4516-01	.5200-01	62.52	.7415	.4239	580.1	.0000-02
111	.00000	.60000	743.00	.3757-01	.4521-01	.5033-01	62.40	.7415	.4239	580.1	.0000-02
111	.00000	.70000	743.00	.3711-01	.4464-01	.4988-01	62.53	.7415	.4239	580.1	.0000-02
111	.00000	.80000	743.00	.3672-01	.4297-01	.4789-01	62.54	.7415	.4239	580.1	.0000-02
111	.00000	.90000	743.00	.3649-01	.4142-01	.4605-01	62.93	.7415	.4239	580.1	.0000-02
111	.67.500	.30000	773.00	.3639-01	.5142-01	.5718-01	62.93	.7415	.4239	580.1	.0000-02
111	.67.500	.30000	772.00	.3636-01	.4808-01	.5351-01	62.42	.7415	.4239	580.1	.0000-02

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(R08720)

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	EXT TANK ODOT BTU/ FT2SEC	H/WT	TM DEG. R	STN NO R=0.9
111	57.500	33000	774.00	.3935-01	.4736-01	.5273-01	62.39	2.455	.4087	555.4	5874-03
111	57.500	33000	776.00	.3917-01	.4714-01	.5248-01	62.40	2.445	.4084	555.1	5847-03
111	57.500	33000	780.00	.3913-01	.4708-01	.5240-01	62.45	2.443	.4080	555.6	5839-03
112	57.500	33000	783.00	.2182-01	.2635-01	.2940-01	61.72	1.347	.4176	570.6	7228-03
112	57.500	33000	785.00	.2298-01	.2774-01	.3094-01	61.82	1.421	.4167	570.3	7241-03
112	57.500	33000	788.00	.2407-01	.2905-01	.3241-01	61.77	1.487	.4172	570.0	7254-03
112	57.500	33000	789.00	.3051-01	.3677-01	.4098-01	62.25	1.899	.4127	554.9	5862-03
112	57.500	33000	791.00	.3250-01	.3933-01	.4377-01	61.71	2.005	.4177	570.8	5869-03
112	57.500	33000	791.00	.3452-01	.4182-01	.4639-01	62.15	2.145	.4137	555.3	5864-03
112	57.500	33000	792.00	.3466-01	.4183-01	.4655-01	62.45	2.142	.4163	555.3	5869-03
112	57.500	33000	793.00	.3627-01	.4363-01	.4855-01	62.92	2.265	.4112	551.8	5821-03
111	57.500	33000	995.00	.1851	.2225	.2474	62.92	11.65	.4037	542.7	5760-02
111	57.500	33000	996.00	.2285	.2747	.3057	62.63	14.31	.4064	552.3	5808-02
111	57.500	33000	997.00	.3009	.3621	.4030	62.45	18.79	.4080	555.5	5803-02
111	57.500	33000	999.00	.3485	.4196	.4671	62.36	21.75	.4085	555.3	5803-02
111	57.500	33000	999.00	.3206	.3959	.4237	62.41	20.00	.4069	555.7	5803-02
111	57.500	33000	999.00	.2457	.2957	.3332	62.30	15.34	.4084	557.1	5808-02
111	57.500	33000	999.00	.1261	.1518	.1693	62.30	7.857	.4094	557.2	5808-02
111	57.500	33000	999.00	.3988-01	.4802-01	.5346-01	62.19	2.490	.4104	559.8	5803-02
111	57.500	33000	813.00	.3450-01	.4153-01	.4623-01	62.34	2.151	.4091	557.0	5803-02
111	57.500	33000	814.00	.2801-01	.3367-01	.3746-01	62.76	1.758	.4051	551.6	5803-02
111	57.500	33000	815.00	.3995-01	.4800-01	.5378-01	62.90	2.513	.4032	550.0	5803-02
111	57.500	33000	817.00	.3753-01	.4512-01	.5019-01	62.71	2.353	.4057	552.4	5803-02
111	57.500	33000	818.00	.3859-01	.4643-01	.5168-01	62.51	2.412	.4073	553.8	5803-02
111	57.500	33000	820.00	.3870-01	.4653-01	.5184-01	62.43	2.416	.4082	553.8	5803-02
111	57.500	33000	822.00	.3977-01	.4863-01	.5389-01	62.56	2.425	.4070	554.2	5803-02
111	57.500	33000	826.00	.3317-01	.4711-01	.5242-01	62.61	2.453	.4065	553.5	5803-02
111	57.500	33000	829.00	.3921-01	.4715-01	.5247-01	62.65	2.457	.4062	553.0	5803-02
111	57.500	33000	832.00	.3809-01	.4580-01	.5095-01	62.69	2.388	.4058	552.6	5803-02
111	57.500	33000	834.00	.3752-01	.4511-01	.5019-01	62.69	2.352	.4059	552.6	5803-02
111	57.500	33000	835.00	.4040-01	.4857-01	.5403-01	62.77	2.536	.4051	551.6	5803-02
111	57.500	33000	836.00	.3650-01	.4791-01	.5287-01	62.53	2.283	.4073	554.5	5803-02
111	57.500	33000	839.00	.3266-01	.4591-01	.5069-01	62.48	2.141	.4078	555.2	5803-02
111	57.500	33000	839.00	.3263-01	.4522-01	.5033-01	62.74	2.047	.4053	551.9	5803-02
111	57.500	33000	843.00	.4061-01	.4885-01	.5437-01	62.53	2.539	.4073	554.6	5803-02
111	57.500	33000	844.00	.3951-01	.4755-01	.5203-01	62.43	2.467	.4082	555.8	5803-02
111	57.500	33000	845.00	.3988-01	.4678-01	.5207-01	62.47	2.429	.4079	554.4	5803-02
111	57.500	33000	846.00	.3868-01	.4654-01	.5179-01	62.51	2.418	.4075	554.1	5803-02
111	57.500	33000	847.00	.3802-01	.4573-01	.5090-01	62.57	2.379	.4070	554.1	5803-02
111	57.500	33000	848.00	.3905-01	.4577-01	.5094-01	62.54	2.379	.4072	554.5	5803-02
111	57.500	33000	849.00	.3940-01	.4738-01	.5273-01	62.61	2.467	.4065	553.5	5803-02
111	57.500	33000	850.00	.3595-01	.4442-01	.4941-01	62.74	2.318	.4054	551.3	5803-02
111	57.500	33000	851.00	.3552-01	.4395-01	.4893-01	62.36	2.277	.4083	555.9	5803-02

DATE 03 MAR 76 AMES 3.5-211 1H48

ARC3.5-211 1H481ET /OGIVE /CLEAN EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ F12SEC	QDOT BTU/ F12SEC	H/HRT	IN DEG. F	STN NO R=0.9
111	112.50	.6900	852.00	.3571-01	.4298-01	.4785-01	62.32	2.225	.4082	337.2	5330-03
111	112.50	.7000	853.00	.3712-01	.4467-01	.4972-01	62.44	2.318	.4081	337.7	5340-03
111	112.50	.7500	854.00	.3547-01	.4265-01	.4745-01	62.71	2.225	.4055	338.7	5350-03
111	112.50	.8000	855.00	.3359-01	.4054-01	.4513-01	62.91	2.102	.4054	339.1	5360-03
111	112.50	.9000	856.00	.3257-01	.3916-01	.4353-01	62.64	2.040	.4053	339.2	5370-03
111	135.00	.4000	870.00	.1677	.2014	.2270	62.94	10.55	.4035	340.7	5380-03
111	135.00	.5000	871.00	.1573	.1891	.2107	62.65	9.855	.4031	341.5	5390-03
111	135.00	.6000	872.00	.1407	.1692	.1933	62.59	9.897	.4027	342.5	5400-03
111	135.00	.7000	873.00	.1455	.1751	.1949	62.47	9.094	.4078	343.7	5410-03
111	135.00	.8000	874.00	.1131	.1351	.1515	62.51	7.072	.4074	344.5	5420-03
111	135.00	.1000	875.00	.1382	.1663	.1851	62.57	8.644	.4073	345.2	5430-03
111	135.00	.1500	876.00	.1221	.1469	.1635	62.47	7.623	.4073	346.1	5440-03
111	135.00	.2000	877.00	.1674-01	.8332-01	.8931-01	62.39	4.164	.4069	346.9	5450-03
111	135.00	.3000	878.00	.4195-01	.5335-01	.5555-01	62.55	2.613	.4069	347.5	5460-03
111	135.00	.4000	879.00	.4150-01	.4992-01	.5275-01	62.53	2.664	.4069	348.2	5470-03
111	135.00	.5000	880.00	.3532-01	.4741-01	.5275-01	62.59	2.467	.4069	349.0	5480-03
111	135.00	.6000	881.00	.3535-01	.4674-01	.5275-01	62.74	2.739	.4069	349.6	5490-03
111	135.00	.7000	882.00	.3539-01	.4703-01	.5275-01	62.41	2.739	.4069	350.1	5500-03
111	135.00	.8000	883.00	.3530-01	.4634-01	.5275-01	62.37	2.939	.4069	350.7	5510-03
111	135.00	.9000	884.00	.3535-01	.4677-01	.5275-01	62.36	2.939	.4069	351.3	5520-03
111	135.00	.0000	885.00	.3532-01	.4657-01	.5275-01	62.36	2.939	.4069	351.9	5530-03
111	135.00	.1000	886.00	.3531-01	.4633-01	.5275-01	62.36	2.939	.4069	352.4	5540-03
111	135.00	.2000	887.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	352.9	5550-03
111	135.00	.3000	888.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	353.4	5560-03
111	135.00	.4000	889.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	353.9	5570-03
111	135.00	.5000	890.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	354.4	5580-03
111	135.00	.6000	891.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	354.9	5590-03
111	135.00	.7000	892.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	355.4	5600-03
111	135.00	.8000	893.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	355.9	5610-03
111	135.00	.9000	894.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	356.4	5620-03
111	135.00	.0000	895.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	356.9	5630-03
111	135.00	.1000	896.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	357.4	5640-03
111	135.00	.2000	897.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	357.9	5650-03
111	135.00	.3000	898.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	358.4	5660-03
111	135.00	.4000	899.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	358.9	5670-03
111	135.00	.5000	900.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	359.4	5680-03
111	135.00	.6000	901.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	359.9	5690-03
111	135.00	.7000	902.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	360.4	5700-03
111	135.00	.8000	903.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	360.9	5710-03
111	135.00	.9000	904.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	361.4	5720-03
111	135.00	.0000	905.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	361.9	5730-03
111	135.00	.1000	906.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	362.4	5740-03
111	135.00	.2000	907.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	362.9	5750-03
111	135.00	.3000	908.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	363.4	5760-03
111	135.00	.4000	909.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	363.9	5770-03
111	135.00	.5000	910.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	364.4	5780-03
111	135.00	.6000	911.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	364.9	5790-03
111	135.00	.7000	912.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	365.4	5800-03
111	135.00	.8000	913.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	365.9	5810-03
111	135.00	.9000	914.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	366.4	5820-03
111	135.00	.0000	915.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	366.9	5830-03
111	135.00	.1000	916.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	367.4	5840-03
111	135.00	.2000	917.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	367.9	5850-03
111	135.00	.3000	918.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	368.4	5860-03
111	135.00	.4000	919.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	368.9	5870-03
111	135.00	.5000	920.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	369.4	5880-03
111	135.00	.6000	921.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	369.9	5890-03
111	135.00	.7000	922.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	370.4	5900-03
111	135.00	.8000	923.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	370.9	5910-03
111	135.00	.9000	924.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	371.4	5920-03
111	135.00	.0000	925.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	371.9	5930-03
111	135.00	.1000	926.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	372.4	5940-03
111	135.00	.2000	927.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	372.9	5950-03
111	135.00	.3000	928.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	373.4	5960-03
111	135.00	.4000	929.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	373.9	5970-03
111	135.00	.5000	930.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	374.4	5980-03
111	135.00	.6000	931.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	374.9	5990-03
111	135.00	.7000	932.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	375.4	6000-03
111	135.00	.8000	933.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	375.9	6010-03
111	135.00	.9000	934.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	376.4	6020-03
111	135.00	.0000	935.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	376.9	6030-03
111	135.00	.1000	936.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	377.4	6040-03
111	135.00	.2000	937.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	377.9	6050-03
111	135.00	.3000	938.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	378.4	6060-03
111	135.00	.4000	939.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	378.9	6070-03
111	135.00	.5000	940.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	379.4	6080-03
111	135.00	.6000	941.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	379.9	6090-03
111	135.00	.7000	942.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	380.4	6100-03
111	135.00	.8000	943.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	380.9	6110-03
111	135.00	.9000	944.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	381.4	6120-03
111	135.00	.0000	945.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	381.9	6130-03
111	135.00	.1000	946.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	382.4	6140-03
111	135.00	.2000	947.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	382.9	6150-03
111	135.00	.3000	948.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	383.4	6160-03
111	135.00	.4000	949.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	383.9	6170-03
111	135.00	.5000	950.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	384.4	6180-03
111	135.00	.6000	951.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	384.9	6190-03
111	135.00	.7000	952.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	385.4	6200-03
111	135.00	.8000	953.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	385.9	6210-03
111	135.00	.9000	954.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	386.4	6220-03
111	135.00	.0000	955.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	386.9	6230-03
111	135.00	.1000	956.00	.3532-01	.4633-01	.5275-01	62.36	2.939	.4069	387.4	6240-03
111	135.00	.2000	957.00								

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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
112	180.00	.60000	635.00	.3177-01	.3830-01	.4268-01	62.18	1.975	.4134	554.9	.4751-23
112	180.00	.65000	637.00	.4012-01	.4838-01	.5393-01	62.09	2.491	.4142	556.0	.5002-23
112	180.00	.70000	638.00	.4306-01	.5186-01	.5777-01	62.43	2.666	.4111	551.8	.5436-23
112	180.00	.75000	639.00	.4387-01	.5278-01	.5875-01	62.79	2.754	.4079	557.3	.5851-23
112	180.00	.80000	640.00	.4189-01	.5048-01	.5626-01	62.25	2.608	.4127	554.0	.5357-23
112	180.00	.85000	646.00	.3827-01	.4607-01	.5130-01	62.61	2.385	.4055	559.3	.5715-23
112	191.25	.90000	658.00	.2148-01	.2590-01	.2886-01	62.18	1.316	.4134	554.9	.5215-23
112	191.25	.95000	672.00	.4141-01	.4985-01	.5550-01	62.62	2.593	.4094	559.7	.5696-23
112	191.25	.98000	673.00	.4450-01	.5354-01	.5978-01	62.19	2.769	.4133	554.9	.5851-23
112	191.25	.99000	674.00	.4229-01	.5094-01	.5674-01	62.43	2.640	.4111	551.8	.5436-23
112	191.25	.99000	675.00	.3570-01	.4419-01	.4922-01	62.52	2.294	.4103	550.0	.5357-23
112	191.25	.99000	676.00	.2931	.3539	.3949	61.64	1.806	.4184	554.9	.5715-23
112	191.25	.99000	677.00	.2744	.3314	.3588	61.61	1.591	.4166	551.8	.5436-23
112	191.25	.99000	678.00	.2587	.3123	.3484	61.77	1.599	.4172	551.8	.5436-23
112	191.25	.99000	679.00	.1410	.1700	.1895	62.02	0.743	.4149	550.0	.5357-23
112	191.25	.99000	680.00	.6539-01	.7887-01	.8794-01	61.99	4.253	.4151	550.0	.5357-23
112	191.25	.99000	681.00	.3776-01	.4546-01	.5063-01	62.56	2.262	.4103	550.0	.5357-23
112	191.25	.99000	682.00	.3635-01	.4384-01	.4887-01	62.05	2.266	.4146	551.8	.5436-23
112	191.25	.99000	683.00	.3649-01	.4393-01	.4892-01	62.56	2.282	.4100	550.0	.5357-23
112	191.25	.99000	684.00	.3543-01	.4392-01	.4855-01	62.16	2.265	.4136	554.9	.5715-23
112	191.25	.99000	685.00	.3729-01	.4552-01	.5071-01	62.37	2.255	.4116	551.8	.5436-23
112	191.25	.99000	686.00	.2669-01	.4426-01	.4935-01	61.57	2.274	.4163	554.9	.5715-23
112	191.25	.99000	687.00	.3603-01	.4351-01	.4852-01	61.91	2.232	.4139	550.0	.5357-23

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(RREF21)

ARC3.5-2111H481ET /OOIVE /CLEAN

EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
113	5.000	.0000	5.300	5.105	405.6	1284.	313.5	.5354	197.4	.2276-03	3650.	.1750-01
114	5.000	.0000	5.300	4.903	406.0	1318.	322.2	.5349	202.9	.2213-03	3700.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
114	.00000	.15100-01	978.00	.3947	.4771	.5328	60.21	23.76	.4215	565.9	.5851-02
114	.00000	.18000-01	979.00	.2977	.3598	.4017	60.30	17.95	.4206	564.7	.4412-02
114	.00000	.24000-01	983.00	.2122	.2926	.3265	60.40	14.63	.4197	563.5	.3559-02
114	.00000	.31000-01	981.00	.2120	.2560	.2857	60.49	12.82	.4189	562.5	.3140-02
113	.00000	.40000-01	737.00	.2114	.2446	.2736	57.24	11.53	.4334	566.3	.2943-02
113	.00000	.45000-01	738.00	.231	.2286	.2562	57.07	10.74	.4351	568.5	.2755-02
113	.00000	.60000-01	739.00	.1556	.1929	.2162	56.84	9.014	.4373	571.4	.2325-02
113	.00000	.70000-01	740.00	.1762	.2150	.2411	56.79	10.04	.4378	572.0	.2592-02
113	.00000	.80000-01	741.00	.1952	.2394	.2684	56.75	11.17	.4382	572.3	.2886-02
113	.00000	.10000+00	742.00	.2186	.2659	.2982	56.76	12.41	.4380	572.3	.3205-02
113	.00000	.12500	743.00	.2202	.2679	.3004	56.76	12.50	.4381	572.4	.3229-02
113	.00000	.15000	744.00	.1902	.2323	.2605	56.70	10.82	.4387	573.2	.2800-02
113	.00000	.17500	745.00	.1314	.1599	.1794	56.63	7.440	.4393	574.0	.1928-02
113	.00000	.20000	746.00	.9333-01	.1209	.1357	56.57	5.619	.4399	574.7	.1456-02
113	.00000	.21500	747.00	.8657-01	.1054	.1182	56.55	4.895	.4401	575.0	.1270-02
113	.00000	.23000	748.00	.7419-01	.9029-01	.1013	56.64	4.202	.4392	573.9	.1082-02
113	.00000	.24000	749.00	.7035-01	.8556-01	.9591-01	56.88	4.002	.4359	571.6	.1031-02
113	.00000	.25000	750.00	.5528-01	.6705-01	.7504-01	57.56	2.192	.4325	562.3	.8086-03
113	.00000	.26000	751.00	.6347-01	.7715-01	.8647-01	56.95	1.615	.4351	569.8	.9302-03
113	.00000	.35000	752.00	.5931-01	.7167-01	.8138-01	56.72	1.342	.4384	572.6	.8640-03
113	.00000	.40000	753.00	.5731-01	.6970-01	.7815-01	56.81	1.255	.4376	571.6	.8402-03
113	.00000	.50000	754.00	.5663-01	.6884-01	.7691-01	59.97	1.412	.4237	569.8	.8441-03
113	.00000	.60000	755.00	.5508-01	.6671-01	.7459-01	59.65	1.285	.4257	572.9	.8175-03
113	.00000	.70000	756.00	.5693-01	.6874-01	.7679-01	60.05	1.413	.4238	567.9	.8430-03
113	.00000	.80000	757.00	.5739-01	.6944-01	.7758-01	59.97	1.442	.4237	566.3	.8514-03
113	.00000	.90000	758.00	.5503-01	.6773-01	.7558-01	60.51	1.393	.4187	562.1	.8307-03



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(RABF211)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
114	112.50	.50000	849.00	.2984-01	.3605-01	.4024-01	60.39	1.802	.4198	563.6	.4421-03
114	112.50	.55000	850.00	.2767-01	.3341-01	.3727-01	60.58	1.676	.4180	561.2	.4098-03
114	112.50	.60000	851.00	.2713-01	.3282-01	.3667-01	59.99	1.627	.4235	568.6	.4025-03
114	112.50	.65000	852.00	.2624-01	.3176-01	.3549-01	59.91	1.572	.4242	569.6	.3894-03
114	112.50	.70000	853.00	.2650-01	.3204-01	.3578-01	60.16	1.594	.4219	566.5	.3929-03
114	112.50	.75000	854.00	.2463-01	.2974-01	.3319-01	60.54	1.491	.4184	561.7	.3648-03
114	112.50	.80000	855.00	.2242-01	.2713-01	.3031-01	60.01	1.346	.4233	568.4	.3327-03
114	112.50	.90000	856.00	.2177-01	.2631-01	.2937-01	60.33	1.313	.4208	564.3	.3227-03
114	135.00	.40000-01	870.00	.1500	.1813	.2024	60.28	9.041	.4208	565.0	.2224-02
114	135.00	.50000-01	871.00	.1358	.1642	.1835	59.99	8.145	.4235	568.5	.2014-02
114	135.00	.60000-01	872.00	.1186	.1435	.1604	59.92	7.106	.4242	569.5	.1760-02
114	135.00	.70000-01	873.00	.1252	.1515	.1694	59.78	7.483	.4254	571.2	.1858-02
114	135.00	.80000-01	874.00	.9849-01	.1192	.1332	59.83	5.893	.4250	570.6	.1462-02
114	135.00	.10000-00	875.00	.1225	.1483	.1657	59.90	7.337	.4244	569.8	.1818-02
114	135.00	.20000	876.00	.9151-01	.1107	.1237	59.93	5.484	.4240	569.3	.1358-02
114	135.00	.30000	877.00	.4756-01	.5755-01	.6430-01	59.94	2.850	.4236	568.8	.7056-03
114	135.00	.40000	878.00	.2871-01	.3472-01	.3879-01	60.06	1.724	.4228	567.7	.4258-03
114	135.00	.50000	879.00	.2886-01	.3249-01	.3629-01	60.09	1.614	.4225	567.3	.3984-03
114	135.00	.60000	880.00	.2495-01	.3002-01	.3350-01	60.42	1.501	.4195	563.3	.3882-03
114	135.00	.70000	881.00	.2427-01	.2930-01	.3268-01	60.66	1.472	.4173	560.3	.3594-03
114	135.00	.80000	882.00	.2405-01	.2910-01	.3250-01	60.08	1.445	.4226	567.4	.3558-03
114	135.00	.90000	883.00	.2258-01	.2853-01	.3187-01	59.98	1.414	.4236	568.8	.3498-03
114	135.00	.10000-00	884.00	.2235-01	.2763-01	.3084-01	60.28	1.378	.4208	565.0	.3388-03
114	135.00	.20000	885.00	.2526-01	.3050-01	.3402-01	60.65	1.532	.4173	560.3	.3741-03
114	135.00	.30000	886.00	.2355-01	.2846-01	.3178-01	60.30	1.420	.4206	564.7	.3491-03
114	135.00	.40000	893.00	.2303-01	.2781-01	.3103-01	60.58	1.395	.4180	561.2	.3411-03
114	154.98	.94500	914.00	.8657-02	.1046-01	.1167-01	60.52	1.5239	.4186	562.0	.1282-03
114	190.00	.40000-01	600.00	.1378	.1673	.1874	57.28	7.894	.4330	565.8	.2017-02
114	190.00	.50000-01	601.00	.1161	.1410	.1581	57.02	6.617	.4358	569.1	.1701-02
114	190.00	.60000-01	602.00	.9595-01	.1179	.1321	56.94	5.520	.4366	570.4	.1421-02
114	190.00	.70000-01	603.00	.8370-01	.1018	.1141	56.91	4.763	.4366	570.4	.1227-02
114	190.00	.80000-01	604.00	.7728-01	.9394-01	.1053	56.95	4.401	.4362	569.9	.1133-02
114	190.00	.90000-00	605.00	.5142-01	.6248-01	.7002-01	57.05	2.933	.4353	568.7	.7533-03
114	190.00	.10000-00	606.00	.2704-01	.3283-01	.3677-01	57.25	1.548	.4334	566.2	.3959-03
114	190.00	.20000	607.00	.1325-01	.1608-01	.1801-01	57.29	1.590	.4329	565.7	.1939-03
114	190.00	.30000	608.00	.1120-01	.1359-01	.1522-01	57.33	1.618	.4326	565.2	.1639-03
114	190.00	.40000	609.00	.8837-02	.1073-01	.1201-01	57.34	1.508	.4324	565.0	.1294-03
114	190.00	.50000	610.00	.8212-02	.1080-01	.1209-01	57.69	1.542	.4291	560.0	.1303-03
114	190.00	.60000	611.00	.1473-01	.1786-01	.1998-01	57.62	1.848	.4298	561.6	.2154-03
114	190.00	.70000	612.00	.1867-01	.2264-01	.2533-01	57.65	1.076	.4295	561.2	.2731-03
114	190.00	.80000	622.00	.2192-01	.2658-01	.2975-01	57.59	1.262	.4295	561.9	.3206-03
114	190.00	.90000	624.00	.2129-01	.2824-01	.3160-01	57.61	1.342	.4299	561.7	.3406-03
114	190.00	.10000-00	628.00	.2239-01	.2896-01	.3240-01	57.64	1.376	.4297	561.4	.3492-03

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(RNEBF21)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	EXT TANK QDOT BTU/ FT2SEC	H/HMT	TH DEG. R	STN NO R=0.9
113	180.00	.48000	632.00	.2557-01	.3100-01	.3468-01	57.67	1.474	.4294	561.0	.3739-03
113	180.00	.50000	634.00	.2502-01	.3031-01	.3390-01	57.88	1.448	.4274	558.4	.3656-03
113	180.00	.55000	635.00	.2647-01	.3206-01	.3584-01	58.01	1.535	.4261	556.7	.3867-03
113	180.00	.60000	636.00	.2694-01	.3267-01	.3656-01	57.62	1.552	.4298	561.6	.3940-03
113	180.00	.65000	637.00	.2703-01	.3278-01	.3688-01	57.57	1.556	.4303	562.2	.3953-03
113	180.00	.70000	638.00	.2714-01	.3289-01	.3690-01	57.74	1.567	.4287	560.1	.3967-03
113	180.00	.75000	639.00	.2725-01	.3300-01	.3690-01	57.95	1.579	.4267	557.5	.3981-03
113	180.00	.80000	640.00	.2705-01	.3281-01	.3672-01	57.77	1.558	.4301	562.0	.3957-03
113	180.00	.80000	646.00	.2765-01	.3351-01	.3749-01	57.66	1.597	.4284	559.7	.4042-03
113	191.25	.40000	658.00	.2654-01	.3218-01	.3601-01	57.85	1.530	.4294	561.1	.3882-03
113	191.25	.50000	672.00	.2474-01	.2997-01	.3352-01	57.85	1.431	.4276	558.7	.3615-03
113	191.25	.60000	673.00	.2584-01	.3133-01	.3506-01	57.62	1.469	.4298	561.5	.3779-03
113	191.25	.70000	674.00	.2484-01	.3011-01	.3368-01	57.72	1.434	.4288	560.3	.3631-03
113	217.70	.50000-01	715.00	.1576	.1916	.2147	56.97	8.980	.4360	569.7	.2310-02
113	217.70	.70000-01	716.00	.1254	.1524	.1708	56.96	7.141	.4361	569.8	.1837-02
113	217.70	.10000-00	717.00	.1169	.1420	.1591	57.14	6.680	.4344	567.5	.1712-02
113	217.70	.15000	718.00	.8719-01	.1058	.1185	57.36	5.002	.4323	564.8	.1276-02
113	217.70	.20000	719.00	.4675-01	.5674-01	.6353-01	57.37	2.682	.4322	564.6	.6842-03
113	217.70	.30000	720.00	.2528-01	.3064-01	.3427-01	57.76	1.460	.4284	559.8	.3695-03
113	217.70	.35000	721.00	.2663-01	.3232-01	.3618-01	57.44	1.530	.4316	563.8	.3897-03
113	217.70	.50000	723.00	.2685-01	.3254-01	.3640-01	57.78	1.551	.4283	559.6	.3925-03
113	217.70	.60000	724.00	.3106-01	.3768-01	.4218-01	57.52	1.787	.4308	562.8	.4544-03
113	217.70	.70000	725.00	.2598-01	.3150-01	.3525-01	57.62	1.497	.4298	561.6	.3793-03
113	217.70	.80000	726.00	.2349-01	.2852-01	.3194-01	57.32	1.347	.4327	565.4	.3439-03
113	217.70	.80000	727.00	.2341-01	.2844-01	.3186-01	57.15	1.338	.4343	567.5	.3430-03



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ARC3.5-211(1M48)ET /OGIVE /CLEAN

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(RMSF22)

## EXTERNAL TANK

## EXT TANK

## PARAMETRIC DATA

ALPHA = 10.00 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO/ SLUG/ FT3	VINF FT/SEC	SCALE
115	10.00	.0000	5.300	5.399	404.9	1239.	301.8	.5358	190.1	.2366-03	3581.	.1750-01
116	10.00	.0000	5.300	4.848	405.2	1326.	324.2	.5337	204.1	.2194-03	3712.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
115	.00000	.15100-01	978.00	.3550	.4456	.5009	53.61	19.57	.4469	562.1	.5250-02
115	.00000	.18000-01	979.00	.2556	.3119	.3505	53.73	13.73	.4457	560.6	.3675-02
115	.00000	.24000-01	980.00	.1904	.2322	.2609	53.80	10.24	.4449	559.6	.2735-02
115	.00000	.31000-01	981.00	.1572	.2039	.2290	53.88	9.009	.4441	558.6	.2402-02
116	.00000	.40000-01	737.00	.2763	.3329	.3709	61.54	17.00	.4123	557.0	.4104-02
116	.00000	.45000-01	738.00	.2647	.3191	.3557	61.40	16.25	.4136	558.8	.3934-02
116	.00000	.60000-01	739.00	.2517	.3036	.3385	61.24	15.41	.4151	560.8	.3743-02
116	.00000	.70000-01	740.00	.3493	.4214	.4698	61.23	21.39	.4151	560.9	.5194-02
116	.00000	.80000-01	741.00	.3795	.4578	.5104	61.22	23.23	.4153	561.1	.5643-02
116	.00000	.10000-00	742.00	.3345	.4034	.4497	61.28	20.50	.4147	560.3	.4973-02
116	.00000	.12500	743.00	.2636	.3252	.3625	61.31	16.53	.4144	559.9	.4008-02
116	.00000	.15000	744.00	.2256	.2721	.3033	61.33	13.84	.4143	559.7	.3354-02
116	.00000	.17500	745.00	.1521	.1834	.2045	61.32	9.328	.4143	559.8	.2261-02
116	.00000	.20000	745.00	.1176	.1418	.1581	61.27	7.204	.4148	560.4	.1748-02
116	.00000	.21500	747.00	.1051	.1280	.1427	61.19	6.492	.4155	561.4	.1578-02
116	.00000	.23000	748.00	.9071-01	.1094	.1177	61.21	5.553	.4153	561.1	.1349-02
116	.00000	.24000	749.00	.8759-01	.1056	.1124	61.42	5.380	.4134	558.5	.1302-02
116	.00000	.25000	750.00	.8746-01	.8117-01	.9035-01	62.03	4.185	.4079	551.0	.1001-02
116	.00000	.26000	751.00	.8140-01	.9811-01	.1093	61.49	5.006	.4127	557.6	.1210-02
116	.00000	.35000	752.00	.8353-01	.1008	.1124	61.22	5.113	.4153	561.1	.1242-02
116	.00000	.40000	753.00	.8569-01	.1034	.1152	61.25	5.249	.4150	560.6	.1274-02
115	.00000	.50000	754.00	.8523-01	.1041	.1171	53.42	4.553	.4488	564.5	.1227-02
115	.00000	.60000	755.00	.8000-01	.9779-01	.1100	53.25	4.260	.4505	566.6	.1152-02
115	.00000	.756.00	756.00	.8269-01	.1010	.1135	53.53	4.644	.4477	563.0	.1189-02
115	.00000	.80000	757.00	.8264-01	.1059	.1191	53.54	4.644	.4475	562.9	.1248-02
115	.00000	.90000	758.00	.8305-01	.1074	.1206	53.92	4.748	.4437	558.1	.1265-02

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DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	ARC3.5-211(1H48)ET /OOIVE /CLEAN				EXT TANK		HM/HT	TH DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QOOT BTU/ F12SEC				
115	67.500	27000	770.00	.6294-01	.7672-01	.8614-01	53.99	3.398	.4431	557.3	.9040-03	
115	67.500	30000	772.00	.5399-01	.6593-01	.7412-01	53.53	2.891	.4476	563.0	.7767-03	
115	67.500	32000	774.00	.5263-01	.6431-01	.7234-01	53.37	2.809	.4493	565.1	.7576-03	
115	67.500	33000	776.00	.5214-01	.6370-01	.7165-01	53.37	2.782	.4493	565.1	.7504-03	
115	67.500	35000	780.00	.5166-01	.6312-01	.7099-01	53.39	2.758	.4490	564.8	.7435-03	
116	67.500	36500	783.00	.4753-01	.5723-01	.6374-01	61.77	2.936	.4102	554.2	.7057-03	
116	67.500	38000	786.00	.4853-01	.5843-01	.6506-01	61.85	3.002	.4095	553.2	.7204-03	
116	67.500	40000	788.00	.4752-01	.5722-01	.6373-01	61.76	2.935	.4103	554.3	.7055-03	
116	67.500	50000	789.00	.4930-01	.5925-01	.6589-01	61.89	2.839	.4043	546.2	.7308-03	
116	67.500	60000	790.00	.4586-01	.5521-01	.6147-01	61.89	2.690	.4091	552.7	.6807-03	
116	67.500	70000	791.00	.4321-01	.5196-01	.5780-01	62.25	2.669	.4057	548.2	.6408-03	
116	67.500	80000	792.00	.4302-01	.5177-01	.5762-01	62.04	2.669	.4077	550.8	.6384-03	
116	67.500	90000	793.00	.3964-01	.4765-01	.5301-01	62.31	2.470	.4052	547.4	.5877-03	
115	90.000	100000	795.00	.1682	.2052	.2306	53.67	9.025	.4463	561.3	.2418-02	
115	90.000	110000	885.00	.2341	.2859	.3215	53.44	12.51	.4485	564.1	.3368-02	
115	90.000	120000	886.00	.2926	.3576	.4023	53.30	15.60	.4499	565.9	.4213-02	
115	90.000	130000	987.00	.3407	.4165	.4687	53.23	18.14	.4507	566.8	.4907-02	
115	90.000	140000	988.00	.3031	.3706	.4171	53.20	16.12	.4510	567.3	.4366-02	
115	90.000	150000	990.00	.2343	.2864	.3223	53.22	12.47	.4508	567.0	.3374-02	
115	90.000	160000	991.00	.1320	.1614	.1817	53.13	7.013	.4517	568.1	.1901-02	
115	90.000	170000	813.00	.4291-01	.5246-01	.5902-01	53.23	2.284	.4507	566.9	.6179-03	
115	90.000	180000	814.00	.3707-01	.4528-01	.5092-01	53.44	1.981	.4486	564.2	.5334-03	
115	90.000	190000	815.00	.3176-01	.3872-01	.4349-01	53.90	1.712	.4440	558.5	.4563-03	
115	90.000	20000	816.00	.4016-01	.4894-01	.5494-01	54.06	2.171	.4424	556.4	.5767-03	
115	90.000	21000	817.00	.3765-01	.4592-01	.5158-01	53.84	2.027	.4445	559.1	.5411-03	
115	90.000	22000	818.00	.3857-01	.4720-01	.5305-01	53.62	2.075	.4468	561.9	.5560-03	
115	90.000	23000	820.00	.3636-01	.4685-01	.5267-01	53.49	2.052	.4481	563.6	.5519-03	
115	90.000	24000	822.00	.3779-01	.4613-01	.5186-01	53.61	2.026	.4469	562.1	.5435-03	
115	90.000	25000	826.00	.3719-01	.4541-01	.5104-01	53.59	1.993	.4471	562.3	.5350-03	
115	90.000	26000	829.00	.3680-01	.4491-01	.5048-01	53.64	1.974	.4466	561.7	.5292-03	
115	90.000	27000	832.00	.3534-01	.4312-01	.4846-01	53.69	1.897	.4461	561.1	.5081-03	
115	90.000	28000	834.00	.3429-01	.4184-01	.4702-01	53.68	1.841	.4461	561.1	.4930-03	
115	90.000	29000	835.00	.3254-01	.4090-01	.4594-01	53.90	1.808	.4439	558.4	.4819-03	
115	90.000	30000	836.00	.2888-01	.3525-01	.3963-01	53.60	1.548	.4469	562.1	.4153-03	
115	90.000	31000	837.00	.2633-01	.3212-01	.3610-01	53.74	1.415	.4456	560.4	.3785-03	
115	90.000	32000	838.00	.2322-01	.2835-01	.3187-01	53.57	1.244	.4473	562.5	.3340-03	
115	90.000	33000	839.00	.2157-01	.2631-01	.2955-01	53.64	1.161	.4446	559.2	.3100-03	
115	90.000	34000	843.00	.2050-01	.2533-01	.2833-01	53.69	1.423	.4460	561.0	.3809-03	
115	112.50	35000	844.00	.2526-01	.3085-01	.3469-01	53.51	1.352	.4479	563.3	.3634-03	
115	112.50	36000	845.00	.2365-01	.2888-01	.3247-01	53.51	1.265	.4479	563.3	.3403-03	
115	112.50	37000	846.00	.2365-01	.2888-01	.3247-01	53.51	1.255	.4478	563.3	.3377-03	
115	112.50	38000	847.00	.2348-01	.2867-01	.3223-01	53.51	1.199	.4474	562.8	.3222-03	
115	112.50	39000	847.00	.2340-01	.2734-01	.3074-01	53.55	1.072	.4473	562.6	.2878-03	
115	112.50	40000	848.00	.2001-01	.2442-01	.2746-01	53.57					

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ARC3.5-211(1H48)ET /OOIVE /CLEAN

EXT TANK

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(RAN8722)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FTSEC	ODOT BTU/ FTSEC	HM/HT	TH DEG. R	STN NO R=0.9
115	112.50	50000	849.00	.1945-01	.2373-01	.2666-01	53.76	1.046	.4453	560.1	.2796-03
115	112.50	55000	850.00	.1661-01	.2025-01	.2275-01	53.92	.8957	.4438	558.2	.2387-03
115	112.50	60000	851.00	.1565-01	.1912-01	.2150-01	53.46	.8370	.4483	563.9	.2253-03
115	112.50	65000	852.00	.1448-01	.1769-01	.1989-01	53.41	.7733	.4489	564.6	.2084-03
115	112.50	70000	853.00	.1371-01	.1674-01	.1882-01	53.59	.7349	.4470	562.3	.1972-03
115	112.50	75000	854.00	.1048-01	.1278-01	.1436-01	53.90	.5650	.4440	558.4	.1506-03
115	112.50	80000	855.00	.8207-02	.1002-01	.1127-01	53.51	.4391	.4479	563.3	.1181-03
115	112.50	90000	856.00	.9862-02	.1215-01	.1366-01	53.72	.5352	.4456	560.5	.1432-03
115	135.00	40000-01	870.00	.1820	.2221	.2495	53.72	9.777	.4457	560.6	.2616-02
115	135.00	50000-01	871.00	.2227	.2720	.3058	53.49	11.91	.4480	563.5	.3204-02
115	135.00	60000-01	872.00	.2344	.2863	.3220	53.43	10.22	.4486	564.3	.3373-02
115	135.00	80000-01	874.00	.1916	.2341	.2634	53.33	12.52	.4496	565.5	.2758-02
115	135.00	20000	877.00	.3200-01	.3910-01	.4397-01	53.41	1.709	.4488	564.5	.4606-03
115	135.00	35000	878.00	.1733-01	.2117-01	.2380-01	53.50	.9274	.4486	564.3	.2494-03
115	135.00	40000	879.00	.1557-01	.1902-01	.2138-01	53.52	.8335	.4478	563.2	.2240-03
115	135.00	50000	880.00	.1150-01	.1403-01	.1577-01	53.78	.6188	.4451	559.9	.1654-03
115	135.00	55000	881.00	.9162-02	.1117-01	.1254-01	53.97	.4945	.4432	557.5	.1316-03
115	135.00	60000	882.00	.5317-02	.7225-02	.8123-02	53.53	.3167	.4477	563.1	.8512-04
115	135.00	65000	883.00	.8334-02	.1014-01	.1140-01	53.50	.4442	.4480	563.5	.1195-03
115	135.00	70000	884.00	.1055-01	.1288-01	.1447-01	53.68	.5663	.4462	561.2	.1517-03
115	135.00	75000	885.00	.1191-01	.1452-01	.1631-01	53.97	.6429	.4433	557.5	.1711-03
115	135.00	80000	886.00	.1272-01	.1552-01	.1744-01	53.71	.6832	.4459	560.8	.1829-03
115	135.00	90000	893.00	.1377-01	.2288-01	.2570-01	53.94	1.013	.4436	557.9	.2697-03
115	157.93	94500	914.00	.8274-02	.6431-02	.7224-02	53.87	.2841	.4442	558.7	.7578-04
116	180.00	40000-01	600.00	.1117	.1346	.1500	61.52	6.873	.4125	557.3	.1660-02
116	180.00	50000-01	601.00	.9315-01	.1123	.1252	61.28	5.709	.4147	560.3	.1385-02
116	180.00	60000-01	602.00	.6541-01	.1030	.1149	61.23	5.229	.4152	560.9	.1270-02
116	180.00	70000-01	603.00	.6611-01	.7975-01	.8893-01	61.21	4.047	.4153	561.2	.9831-03
116	180.00	80000-01	604.00	.6612-01	.7975-01	.8891-01	61.27	4.051	.4148	560.4	.9931-03
116	180.00	90000	605.00	.5554-01	.6695-01	.7462-01	61.40	2.410	.4136	558.8	.8254-03
116	180.00	100000	606.00	.4010-01	.4831-01	.5382-01	61.64	2.472	.4113	555.7	.5956-03
116	180.00	20000	607.00	.1933-01	.2328-01	.2593-01	61.68	1.122	.4110	555.3	.2873-03
116	180.00	30000	608.00	.1265-01	.1826-01	.2034-01	61.71	.9357	.4108	555.0	.2252-03
116	180.00	40000	609.00	.1516-01	.1548-01	.1724-01	61.71	.7931	.4107	554.3	.1929-03
116	180.00	50000	610.00	.5005-02	.9150-02	.1019-01	62.08	.4722	.4073	550.3	.1128-03
116	180.00	60000	611.00	.1294-01	.1556-01	.1732-01	62.20	.8050	.4062	548.8	.1919-03
116	180.00	70000	612.00	.1594-01	.2037-01	.2265-01	62.29	1.055	.4053	547.6	.2512-03
116	180.00	80000	613.00	.1889-01	.2270-01	.2525-01	62.28	1.176	.4053	547.6	.2799-03
116	180.00	90000	614.00	.1934-01	.2325-01	.2586-01	62.30	1.205	.4053	547.6	.2857-03
116	180.00	100000	615.00	.2009-01	.2294-01	.2552-01	62.36	1.190	.4046	547.6	.2830-03
116	180.00	200000	616.00	.2056-01	.2481-01	.2759-01	62.43	1.239	.4041	547.6	.3060-03
116	180.00	300000	617.00	.2057-01	.2350-01	.2612-01	62.60	1.227	.4019	547.6	.2993-03
116	180.00	400000	618.00	.2052-01	.2703-01	.3003-01	62.82	1.414	.4006	547.6	.3234-03

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IR05F281

## EXT TANK

ARC3.5-211(IH48)ET /OOIVE /CLEAN

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H2/H1	TH DEG. F	STN NO R=0.9
116	180.00	60000	636.00	.2477-01	.2977-01	.3312-01	62.30	1.543	.4032	547.5	.3672-03
116	180.00	65000	637.00	.2851-01	.3428-01	.3814-01	62.21	1.774	.4061	548.7	.4228-03
116	180.00	70000	638.00	.3265-01	.3924-01	.4364-01	62.43	2.039	.4041	545.9	.4840-03
116	180.00	75000	639.00	.3647-01	.4381-01	.4870-01	62.60	2.283	.4025	543.9	.5404-03
116	180.00	80000	640.00	.3793-01	.4563-01	.5078-01	62.11	2.356	.4070	549.9	.5627-03
116	180.00	90000	646.00	.3766-01	.4529-01	.5039-01	62.21	2.343	.4061	548.7	.5586-03
116	191.25	40000	658.00	.1905-01	.2290-01	.2548-01	62.32	1.188	.4050	547.2	.2825-03
116	191.25	50000	672.00	.2076-01	.2493-01	.2771-01	62.67	1.301	.4018	542.9	.3076-03
116	191.25	60000	673.00	.2002-01	.2407-01	.2677-01	62.40	1.248	.4051	547.3	.2968-03
116	191.25	70000	674.00	.2223-01	.2671-01	.2971-01	62.40	1.387	.4044	546.3	.3255-03
116	217.70	50000-01	715.00	.1503	.1813	.2022	61.22	9.202	.4153	561.1	.2235-02
116	217.70	70000-01	716.00	.1385	.1671	.1863	61.22	8.480	.4153	561.1	.2060-02
116	217.70	10000-00	717.00	.1205	.1452	.1618	61.46	7.404	.4130	558.0	.1790-02
116	217.70	15000	718.00	.6354-01	.7652-01	.8523-01	61.74	3.923	.4105	554.6	.9435-03
116	217.70	20000	719.00	.3352-01	.4037-01	.4495-01	61.78	2.071	.4101	554.1	.4977-03
116	217.70	30000	720.00	.1248-01	.1500-01	.1670-01	62.13	.7750	.4069	549.7	.1850-03
116	217.70	35000	721.00	.1598-01	.1911-01	.2127-01	62.04	.9854	.4077	550.8	.2357-03
116	217.70	50000	723.00	.9973-02	.1198-01	.1332-01	62.57	.6241	.4027	544.1	.1478-03
116	217.70	60000	724.00	.9172-02	.1103-01	.1227-01	62.26	.5710	.4057	548.1	.1360-03
116	217.70	70000	725.00	.9649-02	.1160-01	.1290-01	62.32	.6013	.4051	547.3	.1431-03
116	217.70	80000	726.00	.9274-02	.1116-01	.1243-01	61.84	.5735	.4096	553.3	.1377-03
116	217.70	87000	727.00	.1006-01	.1212-01	.1350-01	61.62	.6199	.4116	556.0	.1494-03

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**(123456)**

ARC3.5-211:IM481ET /OOIVE /CLEAN

**EXT TANK**

**EXTERNAL TANK**

### PARAMETRIC DATA

ALPHA	BETA	RN/L	1.500
0.000	0.000	0.000	1.500

...TEST CONDITIONS...

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10 6	PT PSIA	TT DEG. R	WT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
117	.0000	.0000	5.200	1.431	115.1	1333.	326.0	.1696	212.0	.6712-04	3711.	.1750-01
				1.431	115.1	1303.	315.4	.1700	205.2	.6952-04	3651.	.1750-01

...TEST DATA...

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HT	TH DEG. R	STN NO R=0.9
118	.00000	.15100-01	978.00	.4634	.5591	.6336	32.87	15.23	.4160	546.9	.1222-01
118	.00000	.18000-01	979.00	.3737	.4508	.5027	32.89	12.29	.4193	546.3	.9850-02
118	.00000	.24000-01	980.00	.3050	.3692	.4116	32.91	10.07	.4152	545.9	.8066-02
118	.00000	.31000-01	981.00	.2636	.3251	.3625	32.94	8.879	.4148	545.3	.7104-02
117	.00000	.40000-01	737.00	.1730	.2049	.2284	34.16	5.807	.4136	562.0	.4570-02
117	.00000	.45000-01	738.00	.1605	.1889	.2105	34.11	5.341	.4145	563.2	.4211-02
117	.00000	.60000-01	739.00	.1255	.1526	.1702	34.03	4.304	.4159	565.1	.3403-02
117	.00000	.70000-01	740.00	.1096	.1324	.1477	33.99	3.123	.4165	565.6	.2553-02
117	.00000	.80000-01	741.00	.9187-01	.1109	.1237	33.99	2.470	.4167	565.9	.2472-02
117	.00000	.10000+00	742.00	.7259-01	.8771-01	.9782-01	33.95	1.761	.4172	566.1	.1955-02
117	.00000	.12500	743.00	.5182-01	.6254-01	.6976-01	33.98	1.364	.4176	566.9	.1394-02
117	.00000	.15000	744.00	.4017-01	.4850-01	.5410-01	33.95	.9341	.4184	567.4	.1081-02
117	.00000	.17500	745.00	.2753-01	.3324-01	.3709-01	33.92	.6736	.4189	568.5	.7410-03
117	.00000	.20000	746.00	.1989-01	.2401-01	.2679-01	33.88	.5865	.4191	569.1	.5353-03
117	.00000	.21500	747.00	.1733-01	.2093-01	.2336-01	33.85	.5283	.4191	569.5	.4665-03
117	.00000	.23000	748.00	.1562-01	.1886-01	.2105-01	33.83	.4505	.4191	569.5	.4205-03
117	.00000	.24000	749.00	.1332-01	.1606-01	.1792-01	33.85	.3472	.4191	569.5	.3679-03
117	.00000	.25000	750.00	.1020-01	.1231-01	.1372-01	34.04	.3230	.4191	567.3	.2744-03
117	.00000	.30000	751.00	.9518-02	.1149-01	.1282-01	33.93	.2676	.4191	566.9	.2461-03
117	.00000	.35000	752.00	.6515-02	.7864-02	.8773-02	33.95	.2212	.4191	566.9	.1753-03
117	.00000	.40000	753.00	.5102-02	.7360-02	.8207-02	34.04	.2076	.4191	564.9	.1641-03
117	.00000	.50000	754.00	.2658-02	.9249-02	.1031-01	32.92	.2524	.4191	545.9	.2021-03
118	.00000	.60000	755.00	.5030-02	.7274-02	.8111-02	32.91	.1985	.4191	545.9	.1559-03
118	.00000	.70000	756.00	.3489-02	.7825-02	.8725-02	32.95	.2353	.4191	545.9	.1110-03
118	.00000	.80000	757.00	.5332-02	.7707-02	.8590-02	33.00	.2309	.4191	545.9	.1684-03
118	.00000	.90000	758.00	.1505-02	.8308-02	.9257-02	33.09	.2261	.4191	545.9	.1816-03

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RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	EXT TANK ODOT BTU/ FT2SEC	H/HIT	TM DEG. R	STN NO R=0.9
118	67.500	27000	770.00	.1085-01	.1309-01	.1459-01	32.99	.3581	.4139	544.1	.2859-03
118	67.500	30000	772.00	.9544-02	.1151-01	.1284-01	32.89	.3139	.4156	546.4	.2316-03
118	67.500	32000	774.00	.9005-02	.1087-01	.1212-01	32.84	.2958	.4164	547.5	.2374-03
118	67.500	33000	776.00	.8957-02	.1081-01	.1206-01	32.84	.2941	.4164	547.5	.2362-03
118	67.500	35000	780.00	.8706-02	.1051-01	.1172-01	32.83	.2858	.4166	547.7	.2295-03
117	67.500	36500	783.00	.7811-02	.9431-02	.1052-01	33.91	.2649	.4178	567.7	.2102-03
117	67.500	38000	786.00	.7031-02	.8487-02	.9468-02	33.94	.2386	.4173	567.0	.1892-03
117	67.500	40000	789.00	.6767-02	.8170-02	.9114-02	33.92	.2295	.4177	567.6	.1821-03
117	67.500	50000	790.00	.5423-02	.6950-02	.7310-02	33.85	.1984	.4162	565.5	.1569-03
117	67.500	60000	792.00	.3923-02	.4738-02	.5287-02	33.85	.1328	.4189	569.2	.1460-03
117	67.500	80000	925.00	.1621	.1956	.2181	32.86	5.327	.4160	567.0	.1056-03
118	90.000	40000-01	926.00	.1443	.1742	.1943	32.81	4.735	.4170	548.2	.4273-02
118	90.000	50000-01	927.00	.1259	.1520	.1695	32.77	4.125	.4176	549.0	.3805-02
119	90.000	60000-01	929.00	.1112	.1343	.1498	32.76	3.643	.4179	549.3	.3320-02
119	90.000	70000-01	930.00	.9499-01	.1147	.1280	32.75	3.112	.4179	549.4	.2934-02
119	90.000	80000-01	930.00	.7578-01	.9150-01	.1021	32.75	2.482	.4180	549.6	.2506-02
119	90.000	90000-01	931.00	.3901-01	.4711-01	.5257-01	32.73	1.277	.4184	550.1	.1999-02
118	90.000	10000-03	931.00	.1371-01	.1556-01	.1847-01	32.79	.4497	.4173	548.6	.1029-02
118	90.000	20000	813.00	.8828-02	.1065-01	.1187-01	32.96	.2909	.4145	544.9	.3617-03
113	90.000	27000	815.00	.1143-01	.1378-01	.1536-01	32.99	.3771	.4138	544.1	.2326-03
118	90.000	29000	817.00	.9961-02	.1189-01	.1326-01	32.94	.3248	.4147	545.2	.3012-03
118	90.000	30000	818.00	.9634-02	.1162-01	.1296-01	32.89	.3169	.4156	545.2	.2599-03
118	90.000	32000	820.00	.9430-02	.1138-01	.1269-01	32.86	.3099	.4161	546.4	.2540-03
118	90.000	33000	822.00	.9287-02	.1120-01	.1249-01	32.88	.3054	.4157	547.0	.2466-03
118	90.000	35000	826.00	.8812-02	.1063-01	.1225-01	32.88	.2994	.4158	546.7	.2446-03
118	90.000	36500	829.00	.8299-02	.1000-01	.1115-01	32.88	.2897	.4158	546.6	.2401-03
118	90.000	38000	832.00	.8174-02	.9862-02	.1067-01	32.88	.2725	.4158	546.6	.2323-03
118	90.000	40000	834.00	.7935-02	.9569-02	.1067-01	32.96	.2687	.4158	546.6	.2185-03
118	90.000	50000	835.00	.6467-02	.7802-02	.8699-02	32.90	.2615	.4144	546.8	.2155-03
118	90.000	60000	838.00	.6257-02	.7545-02	.8411-02	32.97	.2128	.4153	546.0	.2091-03
118	90.000	80000	839.00	.6860-02	.8268-02	.9214-02	33.04	.2063	.4142	544.6	.1705-03
118	90.000	90000	843.00	.5917-02	.1184-01	.1320-01	32.93	.2267	.4129	542.9	.1649-03
118	90.000	100000	844.00	.1002-01	.1209-01	.1348-01	32.88	.3233	.4157	545.4	.1807-03
118	90.000	110000	845.00	.9006-02	.1087-01	.1212-01	32.88	.3294	.4157	545.5	.2641-03
118	90.000	120000	846.00	.8713-02	.1051-01	.1172-01	32.87	.2861	.4158	546.7	.2374-03
118	90.000	130000	847.00	.8196-02	.9889-02	.1103-01	32.88	.2864	.4159	546.8	.2297-03
118	90.000	140000	848.00	.8429-02	.1017-01	.1134-01	32.89	.2772	.4156	546.7	.2161-03
118	90.000	150000	849.00	.8034-02	.9690-02	.1080-01	32.95	.2647	.4146	545.1	.2222-03
118	90.000	160000	850.00	.7048-02	.8498-02	.9472-02	32.98	.2324	.4140	544.3	.2117-03
118	90.000	170000	851.00	.6615-02	.7980-02	.8898-02	32.90	.2176	.4155	545.2	.1837-03
118	90.000	180000	852.00	.6940-02	.8373-02	.9336-02	32.89	.2283	.4156	546.3	.1829-03

AMES 3.5-211 1H48

DATE 05 MAR 76

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
118	112.50	.70000	853.00	.6935-02	.8364-02	.9324-02	32.94	.2285	.4147	545.1	.1827-03
118	112.50	.75000	854.00	.6347-02	.7652-02	.8528-02	33.01	.2095	.4135	543.7	.1672-03
118	112.50	.80000	855.00	.6180-02	.7519-02	.8494-02	32.96	.2082	.4145	544.9	.1665-03
118	113.00	.40000-01	870.00	.1730	.2087	.2327	32.89	5.690	.4155	546.3	.4559-02
118	113.00	.50000-01	871.00	.1546	.1866	.2081	32.84	5.078	.4164	547.5	.4077-02
118	113.00	.60000-01	872.00	.1295	.1563	.1743	32.83	4.250	.4156	547.7	.3414-02
118	113.00	.70000-01	873.00	.1117	.1348	.1504	32.79	3.661	.4173	548.6	.2945-02
118	113.00	.80000-01	874.00	.8969-01	.1083	.1208	32.80	2.942	.4170	548.3	.2365-02
118	113.00	.10000+00	875.00	.7433-01	.8972-01	.1001	32.81	2.439	.4171	548.0	.1960-02
118	113.00	.15000	876.00	.4079-01	.4923-01	.5491-01	32.82	1.338	.4169	548.0	.1076-02
118	113.00	.20000	877.00	.2155-01	.2600-01	.2900-01	32.86	.7081	.4161	547.0	.5681-03
118	113.00	.25000	878.00	.9514-02	.1148-01	.1280-01	32.91	.3131	.4153	546.0	.2508-03
118	113.00	.30000	879.00	.5291-02	.1097-01	.1223-01	32.90	.2991	.4154	546.1	.2396-03
118	113.00	.40000	880.00	.8377-02	.1010-01	.1126-01	32.97	.2762	.4143	544.6	.2207-03
118	113.00	.50000	881.00	.7371-02	.8887-02	.9905-02	33.01	.2433	.4136	543.7	.1942-03
118	113.00	.55000	882.00	.7690-02	.9275-02	.1034-01	32.94	.2533	.4148	545.3	.2027-03
118	113.00	.60000	883.00	.7634-02	.9275-02	.1027-01	32.93	.2514	.4149	545.5	.2012-03
118	113.00	.65000	884.00	.7133-02	.8597-02	.9581-02	33.04	.2356	.4131	543.1	.1879-03
118	113.00	.70000	885.00	.6679-02	.8051-02	.8974-02	33.01	.2205	.4134	543.6	.1759-03
118	113.00	.80000	886.00	.6155-02	.7417-02	.8974-02	33.10	.2037	.4120	541.7	.1621-03
118	113.00	.90000	893.00	.1827	.2216	.2470	34.13	6.272	.4141	542.7	.4340-02
117	180.00	.40000-01	600.00	.1576	.1931	.2120	34.04	5.364	.4157	564.9	.4239-02
117	180.00	.50000-01	601.00	.1351	.1631	.1819	33.99	4.593	.4165	565.9	.3835-02
117	180.00	.60000-01	602.00	.1179	.1423	.1597	33.97	4.005	.4158	566.4	.3172-02
117	180.00	.70000-01	603.00	.1090	.1315	.1467	33.97	3.702	.4168	566.3	.2932-02
117	180.00	.80000-01	604.00	.7199-01	.8688-01	.9690-01	33.93	2.447	.4165	565.0	.1937-02
117	180.00	.10000+00	605.00	.4049-01	.4986-01	.5450-01	33.91	1.376	.4178	565.9	.1839-02
117	180.00	.15000	606.00	.2214-01	.2574-01	.2983-01	33.91	.7509	.4179	567.8	.4610-03
117	180.00	.20000	607.00	.1799-01	.2171-01	.2423-01	33.91	.6097	.4180	567.9	.4122-03
117	180.00	.25000	608.00	.1535-01	.1954-01	.2068-01	33.90	.5205	.4163	565.6	.2730-03
117	180.00	.30000	610.00	.1017-01	.1229-01	.1359-01	34.00	.3460	.4161	565.3	.2533-03
117	180.00	.35000	611.00	.9416-02	.1136-01	.1267-01	34.02	.3203	.4157	564.9	.2431-03
117	180.00	.40000	616.00	.9148-02	.1134-01	.1231-01	34.04	.3114	.4159	564.9	.2361-03
117	180.00	.45000	622.00	.8763-02	.1057-01	.1179-01	34.03	.2992	.4159	565.0	.2301-03
117	180.00	.50000	623.00	.8297-02	.1022-01	.1179-01	34.03	.2779	.4159	565.1	.2233-03
117	180.00	.55000	624.00	.8055-02	.1036-01	.1165-01	34.02	.2549	.4157	565.0	.2186-03
117	180.00	.60000	625.00	.7940-02	.9714-02	.1083-01	34.10	.247	.4143	563.9	.2139-03
117	180.00	.65000	626.00	.7531-02	.9274-02	.1067-01	34.12	.2203	.4135	563.9	.2079-03
117	180.00	.70000	627.00	.7132-02	.8161-02	.1022-01	33.99	.2090	.4137	563.9	.2043-03
117	180.00	.75000	628.00	.6692-02	.7411-02	.1050-01	34.04	.2021	.4157	564.9	.2008-03
117	180.00	.80000	629.00	.6292-02	.6646-02	.1076-01	34.10	.221	.4157	564.9	.2000-03
117	180.00	.85000	630.00	.5832-02	.6335-02	.1040-01	34.10	.2635	.4147	563.9	.1971-03

AMES 3.5-211 1H48

DATE 05 MAR 76

ARC3.5-21111H481ET /OOIVE /CLEAN

EXT TANK

PUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HA/HY	TH DEG. R	STN ID R=0.9
117	180.00	.80000	640.00	.7436-02	.8976-02	.1001-01	33.95	.2825	.4170	566.6	.2001-03
117	180.00	.90000	646.00	.6926-02	.8353-02	.9312-02	34.10	.2362	.4147	563.5	.1862-03
117	191.25	.40000	659.00	.9316-02	.1124-01	.1253-01	34.08	.3175	.4150	563.9	.2505-03
117	191.25	.50000	672.00	.9186-02	.1108-01	.1235-01	34.12	.3134	.4143	562.9	.2470-03
117	191.25	.60000	673.00	.8681-02	.1047-01	.1168-01	34.03	.2954	.4158	565.0	.2335-03
117	191.25	.70000	674.00	.8155-02	.9837-02	.1097-01	34.06	.2777	.4154	564.4	.2193-03
117	217.70	.80000	715.00	.1547	.1866	.2080	34.12	5.280	.4143	562.9	.4160-02
117	217.70	.90000	716.00	.1305	.1573	.1754	34.12	4.451	.4144	563.1	.3508-02
117	217.70	.10000	717.00	.9077-01	.1094	.1220	34.17	3.101	.4136	561.9	.2440-02
117	217.70	.20000	718.00	.4205-01	.5069-01	.5649-01	34.20	1.439	.4130	561.2	.1130-02
117	217.70	.30000	719.00	.2168-01	.2615-01	.2915-01	34.12	.7398	.4144	563.0	.5630-03
117	217.70	.40000	720.00	.1261-01	.1521-01	.1695-01	34.16	.4309	.4137	562.1	.3391-03
117	217.70	.50000	721.00	.1126-01	.1358-01	.1514-01	34.10	.3641	.4147	563.5	.3029-03
117	217.70	.60000	723.00	.1205-01	.1454-01	.1620-01	34.17	.4121	.4135	561.3	.3241-03
117	217.70	.70000	724.00	.1270-01	.1532-01	.1708-01	34.11	.4334	.4145	563.2	.3416-03
117	217.70	.80000	725.00	.1283-01	.1548-01	.1725-01	34.13	.4390	.4143	562.9	.3451-03
117	217.70	.90000	726.00	.1268-01	.1530-01	.1706-01	34.02	.4314	.4160	565.2	.3411-03
117	217.70	.10000	727.00	.1434-01	.1730-01	.1930-01	34.01	.4877	.4161	565.4	.3657-03



DATE 05 MAR 75  
AMES 3.5-211 1H48  
ARC3.5-211(1H48)ET /OGIVE /CLEAN /TRIP EXT TASK

EXTERNAL TASK  
PARAMETRIC DATA  
ALPHA = .0000 BETA = .0000 RV/L = 1.500

\*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	PHI DEG.	ALPHA DEG.	BETA DEG.	MACH	RV/L PER FT X10 6	PT PSIA	TT DEG. R	HT BTU/ LBH	PINF PSIA	TINF DEG. R	RWQ SLUG/ FT3	VINF FT/SEC	SCALE
119	.0000	.0000	.0000	5.200	1.392	115.1	1355.	332.0	.1694	216.0	.6592-04	3745.	.1750-01
120	.0000	.0000	.0000	5.200	1.377	114.9	1355.	334.2	.1691	217.3	.6529-04	3758.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/HWT	TM DEG. R	STN NO R=0.5
119	.0000	.15100-01	978.00	.4535	.5422	.6011	35.33	16.47	.3822	538.6	1234-01
119	.0000	.18000-01	979.00	.3567	.4385	.4880	36.36	13.33	.3897	537.6	9531-02
119	.0000	.24000-01	990.00	.3010	.3598	.3987	36.39	10.95	.3682	537.1	9125-02
119	.0000	.31000-01	991.00	.2653	.3170	.3513	35.41	9.659	.3878	536.6	7152-02
120	.0000	.40000-01	737.00	.1845	.1967	.2180	36.58	6.018	.3937	537.3	7152-02
120	.0000	.45000-01	739.00	.1550	.1653	.2055	36.54	5.664	.3933	537.2	7152-02
120	.0000	.50000-01	739.00	.1050	.1255	.1392	36.53	3.835	.3934	537.5	7152-02
120	.0000	.55000-01	740.00	.1341	.1604	.1778	36.53	4.832	.3935	537.5	7152-02
120	.0000	.60000-01	741.00	.1193	.1422	.1576	36.53	4.342	.3934	537.5	7152-02
120	.0000	.65000-01	742.00	.9504-01	.1135	.1260	36.53	3.472	.3934	537.5	7152-02
120	.0000	.70000-01	743.00	.7103-01	.8435-01	.9417-01	36.52	2.504	.3934	537.5	7152-02
120	.0000	.75000-01	744.00	.5735-01	.6959-01	.7605-01	36.49	2.092	.3934	537.5	7152-02
120	.0000	.80000-01	745.00	.3511-01	.4200-01	.4657-01	36.46	1.280	.3934	537.5	7152-02
120	.0000	.85000-01	746.00	.2339-01	.2799-01	.3103-01	36.39	.850	.3934	537.5	7152-02
120	.0000	.90000-01	747.00	.1939-01	.2357-01	.2615-01	36.33	.715	.3934	537.5	7152-02
120	.0000	.95000-01	749.00	.1593-01	.1932-01	.2111-01	36.28	.575	.3934	537.5	7152-02
120	.0000	.10000-01	749.00	.1433-01	.1716-01	.1904-01	36.26	.515	.3934	537.5	7152-02
120	.0000	.15000-01	750.00	.1287-01	.1540-01	.1644-01	36.34	.394	.3934	537.5	7152-02
120	.0000	.20000-01	751.00	.1087-01	.1302-01	.1444-01	36.31	.394	.3934	537.5	7152-02
120	.0000	.25000-01	752.00	.927-02	.1302-01	.1555-01	36.39	.4282	.3934	537.5	7152-02
120	.0000	.30000-01	753.00	.1171-01	.1402-01	.1579-01	36.46	.4339	.3934	537.5	7152-02
120	.0000	.35000-01	754.00	.1190-01	.1247-01	.1579-01	36.46	.4339	.3934	537.5	7152-02
120	.0000	.40000-01	754.00	.1493-01	.1591-01	.1975-01	36.13	.4363	.3934	537.5	7152-02
120	.0000	.45000-01	755.00	.2635-01	.2632-01	.3141-01	36.13	.4363	.3934	537.5	7152-02
120	.0000	.50000-01	756.00	.2335-01	.2335-01	.2754-01	36.18	.4363	.3934	537.5	7152-02
120	.0000	.55000-01	757.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.60000-01	758.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.65000-01	759.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.70000-01	760.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.75000-01	761.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.80000-01	762.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.85000-01	763.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.90000-01	764.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.95000-01	765.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.10000-01	766.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.15000-01	767.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.20000-01	768.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.25000-01	769.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.30000-01	770.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.35000-01	771.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.40000-01	772.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.45000-01	773.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.50000-01	774.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.55000-01	775.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.60000-01	776.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.65000-01	777.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.70000-01	778.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.75000-01	779.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.80000-01	780.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.85000-01	781.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.90000-01	782.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.95000-01	783.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.10000-01	784.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.15000-01	785.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.20000-01	786.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.25000-01	787.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.30000-01	788.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.35000-01	789.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.40000-01	790.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.45000-01	791.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.50000-01	792.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.55000-01	793.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.60000-01	794.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.65000-01	795.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.70000-01	796.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.75000-01	797.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.80000-01	798.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.85000-01	799.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.90000-01	800.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.95000-01	801.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.10000-01	802.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.15000-01	803.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.20000-01	804.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.25000-01	805.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.30000-01	806.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.35000-01	807.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.40000-01	808.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.45000-01	809.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.50000-01	810.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.55000-01	811.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.60000-01	812.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.65000-01	813.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.70000-01	814.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.75000-01	815.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.80000-01	816.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.85000-01	817.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.90000-01	818.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.95000-01	819.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.10000-01	820.00	.2332-01	.2332-01	.2754-01	36.17	.4363	.3934	537.5	7152-02
120	.0000	.15000-01	821.00	.2332-01	.2332-01	.2754-01	36.17	.4363			



ORIGINAL PAGE IS  
OF POOR QUALITY

AMES 3.5-211 1H49

DATE 05 MAR 76

ARC3.5-211(1H49)ET /OOIVE /CLEAN /TRIP EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
119	112.50	65000	852.00	.2796-01	.3348-01	.3715-01	36.07	1.009	.3933	544.2	.7559-03
119	112.50	70000	853.00	.2909-01	.3482-01	.3863-01	36.10	1.050	.3929	543.7	.7861-03
119	112.50	75000	854.00	.2800-01	.3351-01	.3717-01	36.14	1.012	.3923	542.8	.7556-03
119	112.50	80000	855.00	.2685-01	.3215-01	.3568-01	36.05	.9681	.3936	544.7	.7258-03
119	112.50	90000	856.00	.2622-01	.3140-01	.3483-01	36.09	.9464	.3931	543.9	.7088-03
119	135.00	40000-01	870.00	.1721	.2057	.2280	36.36	6.256	.3887	537.9	.4646-02
119	135.00	50000-01	871.00	.1548	.1851	.2053	36.28	5.616	.3899	539.6	.4181-02
119	135.00	60000-01	872.00	.1059	.1267	.1405	36.27	3.842	.3901	539.8	.2860-02
119	135.00	70000-01	873.00	.1570	.1878	.2082	36.22	5.686	.3908	540.9	.4240-02
119	135.00	80000-01	874.00	.1766	.2112	.2342	36.23	6.397	.3908	540.8	.4770-02
119	135.00	10000-00	875.00	.1673	.2002	.2220	36.21	6.059	.3910	541.1	.4520-02
119	135.00	15000	876.00	.7986-01	.9558-01	.1060	36.16	2.888	.3919	542.3	.4520-02
119	135.00	20000	877.00	.3638-01	.4356-01	.4832-01	36.10	1.313	.3928	543.6	.9833-03
119	135.00	35000	878.00	.1481-01	.1773-01	.1967-01	36.10	.5347	.3928	543.6	.4003-03
119	135.00	40000	879.00	.1576-01	.1887-01	.2093-01	36.13	.5695	.3923	542.9	.4259-03
119	135.00	50000	880.00	.2187-01	.2618-01	.2904-01	36.13	.7901	.3924	543.0	.5910-03
119	135.00	55000	881.00	.2602-01	.3114-01	.3454-01	36.15	.9406	.3921	542.5	.7031-03
119	135.00	60000	882.00	.2885-01	.3454-01	.3832-01	36.10	1.042	.3929	543.7	.7798-03
119	135.00	65000	883.00	.2942-01	.3523-01	.3908-01	36.08	1.061	.3933	544.2	.7953-03
119	135.00	70000	884.00	.2975-01	.3562-01	.3952-01	36.09	1.074	.3930	543.8	.8041-03
119	135.00	75000	885.00	.3009-01	.3602-01	.3996-01	36.13	1.087	.3924	543.0	.8133-03
119	135.00	80000	886.00	.2735-01	.3275-01	.3633-01	36.07	.9866	.3933	544.3	.7392-03
119	135.00	90000	893.00	.2716-01	.3251-01	.3607-01	36.14	.9816	.3923	542.8	.7341-03
120	182.00	40000-01	600.00	.1761	.2105	.2333	36.59	6.441	.3885	541.1	.4774-02
120	182.00	50000-01	601.00	.1558	.1863	.2066	36.55	5.696	.3892	542.0	.4227-02
120	180.00	50000-01	602.00	.1172	.1401	.1553	36.54	4.282	.3893	542.2	.3179-02
120	180.00	70000-01	603.00	.1371	.1639	.1817	36.54	5.011	.3892	542.1	.3719-02
120	180.00	80000-01	604.00	.2140	.2559	.2836	36.54	7.819	.3893	542.2	.5804-02
120	180.00	10000-00	605.00	.1554	.1858	.2060	36.54	5.680	.3895	542.5	.4216-02
120	180.00	15000	606.00	.7882-01	.9426-01	.1045	36.46	1.319	.3907	544.1	.2138-02
120	180.00	20000	607.00	.3618-01	.4328-01	.4799-01	36.43	1.017	.3910	544.6	.9816-03
120	180.00	21000	608.00	.2790-01	.3338-01	.3702-01	36.41	.8347	.3914	545.2	.7572-03
120	180.00	22000	609.00	.2293-01	.2743-01	.3043-01	36.41	.4814	.3915	545.3	.6222-03
120	180.00	30000	610.00	.1322-01	.1582-01	.1752-01	36.40	.4804	.3914	545.2	.6222-03
120	180.00	35000	611.00	.1316-01	.1574-01	.1745-01	36.50	.4804	.3915	545.3	.3571-03
120	180.00	40000	616.00	.1351-01	.1627-01	.1804-01	36.53	.4971	.3894	542.4	.3589-03
120	180.00	45000	622.00	.1495-01	.1788-01	.1983-01	36.53	.5462	.3896	542.6	.4057-03
120	180.00	42500	624.00	.1575-01	.1884-01	.2088-01	36.53	.5753	.3896	542.8	.4273-03
120	180.00	45000	628.00	.1612-01	.1928-01	.2138-01	36.51	.5816	.3898	542.8	.4374-03
120	180.00	48000	632.00	.1658-01	.2235-01	.2478-01	36.48	.6815	.3903	542.8	.5069-03
120	180.00	50000	634.00	.1662-01	.2231-01	.2478-01	36.51	.6143	.3898	542.8	.4564-03
120	180.00	55000	635.00	.2412-01	.2885-01	.3199-01	36.49	.8801	.3902	543.4	.6544-03
120	180.00	60000	636.00	.2542-01	.3399-01	.3769-01	36.50	1.037	.3900	543.1	.7710-03

DATE 05 MAR 76

AMES 3.5-21: 1H4B

ARC3.5-21:11H4B1ET /OOIVE /CLEAN /TRIP EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ F12SEC	QDOT BTU/ F12SEC	HM/HT	TM DEG. R	STN NO R=0.9
120	180.00	65000	637.00	.2958-01	.3538-01	.3922-01	36.50	1.080	.3900	543.2	.8025-03
120	180.00	70000	638.00	.2953-01	.3533-01	.3917-01	36.46	1.076	.3907	544.1	.8012-03
120	180.00	75000	639.00	.2976-01	.3560-01	.3947-01	36.46	1.085	.3906	544.1	.8074-03
120	180.00	80000	640.00	.2908-01	.3480-01	.3859-01	36.40	1.058	.3916	545.4	.7892-03
120	180.00	90000	646.00	.2664-01	.3197-01	.3534-01	36.47	.9714	.3905	543.9	.7228-03
120	191.25	40000	658.00	.1606-01	.1921-01	.2129-01	36.52	.5864	.3897	542.7	.4356-03
120	191.25	50000	672.00	.2035-01	.2434-01	.2698-01	36.49	.7424	.3901	543.3	.5520-03
120	191.25	60000	673.00	.2812-01	.3363-01	.3729-01	36.52	1.027	.3896	542.7	.7629-03
120	191.25	70000	674.00	.2932-01	.3507-01	.3889-01	36.48	1.059	.3903	543.7	.7955-03
120	217.70	50000-01	715.00	.1604	.1917	.2124	36.61	5.870	.3883	540.7	.4348-02
120	217.70	70000-01	716.00	.1412	.1688	.1870	36.64	5.174	.3877	539.9	.3828-02
120	217.70	10000+00	717.00	.1419	.1696	.1880	36.66	5.203	.3874	539.6	.3848-02
120	217.70	15000	718.00	.7333-01	.8763-01	.9710-01	36.65	2.688	.3875	539.7	.1988-02
120	217.70	20000	719.00	.3424-01	.4094-01	.4538-01	36.59	1.253	.3886	541.2	.3828-03
120	217.70	30000	720.00	.1411-01	.1688-01	.1871-01	36.50	.5150	.3899	543.1	.3522-03
120	217.70	35000	721.00	.1299-01	.1553-01	.1721-01	36.57	.4749	.3889	541.6	.5387-03
120	217.70	40000	723.00	.1986-01	.2375-01	.2633-01	36.52	.7253	.3896	542.6	.7746-03
120	217.70	50000	724.00	.2856-01	.3415-01	.3785-01	36.56	1.044	.3890	541.8	.8524-03
120	217.70	60000	725.00	.3142-01	.3758-01	.4166-01	36.50	1.147	.3899	543.1	.8109-03
120	217.70	70000	726.00	.2988-01	.3575-01	.3964-01	36.45	1.089	.3908	544.2	.7947-03
120	217.70	80000	727.00	.2928-01	.3504-01	.3885-01	36.44	1.067	.3909	544.5	

AMES 3.5-211 1H4B

DATE 05 MAR 76

ARC3.5-2111H4B1ET /OOIVE /CLEAN /TRIP EXT TANK

EXTERNAL TANK

PARAMETRIC DATA

ALPHA = .0000 BETA = .0000 RN/L = 5.000

\*\*\*TEST CONDITIONS\*\*\*

PLN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT3	VINF FT/SEC	SCALE
121	.0000	.0000	5.300	4.868	407.1	1326.	324.3	.5361	204.2	.2203-03	3712.	.1750-01
122	.0000	.0000	5.300	4.919	406.5	1316.	321.8	.5357	202.6	.2219-03	3698.	.1750-01

\*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
122	.00000	.15100-01	978.00	.4174	.5032	.5609	61.00	25.46	.4138	554.9	.6165-02
122	.00000	.24000-01	980.00	.2785	.3355	.3737	61.25	17.06	.4112	551.7	.4111-02
122	.00000	.31000-01	981.00	.2239	.2696	.3003	61.33	13.73	.4107	550.8	.3304-02
121	.00000	.40000-01	737.00	.1726	.2081	.2319	61.61	10.64	.4131	558.3	.2560-02
121	.00000	.45000-01	738.00	.1394	.1684	.1880	60.85	8.481	.4201	567.8	.2071-02
121	.00000	.50000-01	739.00	.1288	.1554	.1733	61.20	7.880	.4169	563.4	.1911-02
121	.00000	.55000-01	740.00	.2891	.3490	.3993	61.17	17.69	.4172	563.8	.4293-02
121	.00000	.60000-01	741.00	.3422	.4132	.4610	61.12	20.92	.4176	564.4	.5082-02
121	.00000	.65000-01	742.00	.2477	.2980	.3336	61.15	15.15	.4174	564.1	.3678-02
121	.00000	.70000-01	743.00	.1762	.2127	.2373	61.16	10.77	.4173	564.0	.2616-02
121	.00000	.75000	744.00	.1364	.1647	.1837	61.14	8.339	.4175	564.2	.2025-02
121	.00000	.80000	745.00	.8582-01	.1036	.1156	61.07	5.241	.4181	565.1	.1275-02
121	.00000	.85000	746.00	.5881-01	.7102-01	.7825-01	61.02	3.589	.4185	565.7	.8735-03
121	.00000	.90000	747.00	.4982-01	.6018-01	.6716-01	60.98	3.038	.4189	566.2	.7401-03
121	.00000	.95000	748.00	.4010-01	.4842-01	.5403-01	61.05	2.448	.4183	565.4	.5956-03
121	.00000	.20000	749.00	.3697-01	.4451-01	.4976-01	61.27	2.265	.4163	562.6	.5488-03
121	.00000	.25000	750.00	.2777-01	.3343-01	.3722-01	61.99	1.721	.4096	553.6	.4113-03
121	.00000	.30000	751.00	.3905-01	.4711-01	.5252-01	61.44	2.400	.4147	560.5	.5796-03
121	.00000	.35000	752.00	.3746-01	.4518-01	.5038-01	61.38	2.299	.4153	561.3	.5796-03
121	.00000	.40000	753.00	.3620-01	.4366-01	.4867-01	61.49	2.226	.4142	559.8	.5371-03
121	.00000	.45000	754.00	.3811-01	.4598-01	.5127-01	60.82	2.318	.4155	557.1	.5632-03
122	.00000	.50000	755.00	.3546-01	.4400-01	.4907-01	60.74	2.215	.4161	558.0	.5393-03
122	.00000	.55000	756.00	.3638-01	.4487-01	.4891-01	60.94	2.217	.4143	555.6	.5375-03
122	.00000	.60000	757.00	.3498-01	.4218-01	.4701-01	60.98	2.133	.4139	555.1	.5167-03
122	.00000	.65000	758.00	.3325-01	.4035-01	.4460-01	61.32	2.039	.4108	550.8	.4907-03
122	.00000	.70000	759.00	.4076-01	.4310-01	.5469-01	61.25	2.496	.4114	551.7	.6016-03

DATE 05 MAR 76

AVES 3.5-211 1H48

ARC3.5-211(1H48)ET /O/GIVE /CLEAN /TRIP EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
122	67.500	30000	772.00	3879-01	4690-01	5218-01	60.83	2.360	4153	557.0	5733-03
122	67.500	32000	774.00	3855-01	4652-01	5189-01	60.70	2.340	4165	558.5	5699-03
122	67.500	33000	776.00	3860-01	4658-01	5195-01	60.73	2.344	4123	558.2	5706-03
121	67.500	35000	783.00	3863-01	4655-01	5187-01	61.70	2.383	4116	557.3	5728-03
121	67.500	38000	786.00	3535-01	4379-01	4879-01	61.77	2.245	4118	556.3	5388-03
121	67.500	40000	789.00	3679-01	4432-01	4938-01	61.75	2.272	4094	556.6	5453-03
121	67.500	50000	790.00	3828-01	4608-01	5131-01	62.02	2.374	4116	553.3	5670-03
121	67.500	60000	792.00	3595-01	4331-01	4825-01	61.77	2.099	4095	553.4	5329-03
121	67.500	70000	791.00	3385-01	4075-01	4537-01	62.01	2.098	4110	555.5	5029-03
121	67.500	80000	792.00	3393-01	4087-01	4553-01	61.84	2.098	4079	551.2	4708-03
121	67.500	90000	793.00	3180-01	3826-01	4259-01	62.18	1.977	4137	554.8	2577-02
122	90.000	40000-01	985.00	1745	2103	2344	61.01	10.64	4162	558.1	2339-02
122	90.000	50000-01	986.00	1583	1910	2130	60.74	9.612	4172	559.5	2327-02
122	90.000	60000-01	987.00	1574	1900	2119	60.63	9.542	4178	560.3	4153-02
122	90.000	70000-01	988.00	2808	3391	3783	60.57	17.01	4181	560.7	5119-02
122	90.000	80000-01	989.00	3461	4179	4663	60.53	20.95	4179	560.4	3747-02
122	90.000	10000-00	990.00	2534	3059	3414	60.55	15.34	4186	561.3	1905-02
122	90.000	15000	991.00	1736	1555	1736	60.48	7.790	4182	560.8	6167-03
122	90.000	20100	813.00	4170-01	5035-01	5618-01	60.52	2.523	4166	558.6	5266-03
122	90.000	24000	814.00	3562-01	4299-01	4795-01	60.70	2.162	4121	552.7	4144-03
122	90.000	25000	815.00	2807-01	3382-01	3768-01	61.17	1.717	4107	552.8	6003-03
122	90.000	27000	816.00	4068-01	4899-01	5457-01	61.32	2.495	4126	553.3	5569-03
122	90.000	29000	817.00	3772-01	4545-01	5065-01	61.12	2.305	4146	556.0	5840-03
122	90.000	30000	818.00	3952-01	4767-01	5314-01	60.91	2.437	4155	557.2	5924-03
122	90.000	32000	820.00	4008-01	4835-01	5392-01	60.81	2.429	4143	555.6	5888-03
122	90.000	33000	822.00	3950-01	4763-01	5309-01	60.98	2.409	4136	554.7	5838-03
122	90.000	35000	825.00	3952-01	4765-01	5311-01	61.01	2.411	4133	554.2	5744-03
122	90.000	36000	829.00	3887-01	4688-01	5225-01	61.05	2.374	4133	554.3	5653-03
122	90.000	40000	834.00	3827-01	4614-01	5142-01	61.05	2.336	4119	552.4	6044-03
122	90.000	50000	835.00	4094-01	4933-01	5486-01	61.20	2.505	4140	555.2	5370-03
122	90.000	60000	836.00	3635-01	4383-01	4886-01	60.97	2.217	4143	555.6	5011-03
122	90.000	80000	838.00	3392-01	4091-01	4560-01	60.94	2.067	4122	552.8	4638-03
122	90.000	90000	839.00	3141-01	3785-01	4217-01	61.16	1.921	4143	555.5	6047-03
122	112.50	30000	843.00	4093-01	4936-01	5502-01	60.95	2.495	4153	556.9	5916-03
122	112.50	32000	844.00	4004-01	4830-01	5385-01	60.83	2.435	4151	556.6	5826-03
122	112.50	35000	845.00	3943-01	4756-01	5302-01	60.86	2.399	4148	556.2	5809-03
122	112.50	37000	846.00	3931-01	4742-01	5286-01	60.89	2.394	4143	555.5	5687-03
122	112.50	40000	847.00	3849-01	4642-01	5175-01	60.94	2.346	4143	555.5	5736-03
122	112.50	45000	848.00	3883-01	4682-01	5219-01	60.94	2.366	4130	553.8	5854-03
122	112.50	50000	849.00	3964-01	4778-01	5325-01	61.08	2.421	4114	551.6	5446-03
122	112.50	55000	850.00	3589-01	4414-01	4951-01	61.26	2.260	4151	556.6	5384-03
122	112.50	60000	851.00	3643-01	4395-01	4900-01	60.86	2.217			

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AMES 3.5-211 1148

ARC3.5-211(1148)ET /OOIVE /CLEAN /TRIP EXT TANK

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(RMBF25)

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
122	112.50	.65000	852.00	.3563-01	.4420-01	.4928-01	60.81	2.228	.4156	557.3	.5414-03
122	112.50	.70000	853.00	.3778-01	.4555-01	.5078-01	60.96	2.303	.4141	555.4	.5580-03
122	112.50	.75000	854.00	.3579-01	.4311-01	.4803-01	61.24	2.192	.4115	551.8	.5283-03
122	112.50	.80000	855.00	.3421-01	.4126-01	.4600-01	60.88	2.083	.4148	556.3	.5054-03
122	112.50	.90000	856.00	.3266-01	.3937-01	.4387-01	61.07	1.995	.4131	554.0	.4824-03
122	135.00	.40000-01	870.00	.3117	.3757	.4187	61.10	19.04	.4129	553.6	.4603-02
122	135.00	.50000-01	871.00	.3919	.4727	.5271	60.83	23.84	.4153	556.9	.5791-02
122	135.00	.60000-01	872.00	.4504	.5433	.6059	60.80	27.38	.4156	557.4	.6656-02
122	135.00	.70000-01	873.00	.4162	.5023	.5603	60.68	25.25	.4168	558.9	.6153-02
122	135.00	.80000-01	874.00	.2893	.3491	.3894	60.69	17.56	.4166	558.6	.4276-02
122	135.00	.10000-00	875.00	.2355	.2842	.3170	60.71	14.30	.4165	558.5	.3481-02
122	135.00	.15000	876.00	.1330	.1606	.1791	60.68	8.073	.4167	558.8	.1967-02
122	135.00	.20000	877.00	.6564-01	.7921-01	.8834-01	60.71	3.985	.4165	558.5	.9703-03
122	135.00	.30000	878.00	.4070-01	.4909-01	.5473-01	60.86	2.477	.4151	556.6	.6014-03
122	135.00	.40000	879.00	.4064-01	.4901-01	.5464-01	60.90	2.475	.4147	556.0	.6005-03
122	135.00	.50000	880.00	.3975-01	.4670-01	.5204-01	61.11	2.368	.4127	553.5	.5722-03
122	135.00	.55000	881.00	.3917-01	.4597-01	.5121-01	61.30	2.392	.4109	551.0	.5633-03
122	135.00	.60000	882.00	.3925-01	.4734-01	.5277-01	60.94	2.344	.4143	555.6	.5799-03
122	135.00	.65000	883.00	.3892-01	.4694-01	.5233-01	60.88	2.369	.4149	556.3	.5750-03
122	135.00	.70000	884.00	.3840-01	.4629-01	.5160-01	61.03	2.344	.4134	554.4	.5672-03
122	135.00	.75000	885.00	.3866-01	.4657-01	.5187-01	61.29	2.369	.4111	551.2	.5706-03
122	135.00	.80000	886.00	.3580-01	.4315-01	.4809-01	61.05	2.185	.4133	554.2	.5287-03
122	135.00	.90000	893.00	.3460-01	.4168-01	.4643-01	61.25	2.119	.4114	551.7	.5107-03
122	154.99	.94500	914.00	.1747-01	.2106-01	.2346-01	61.16	1.069	.4122	552.8	.2580-03
121	180.00	.40000-01	600.00	.1678	.2022	.2252	61.86	10.38	.4109	555.3	.2487-02
121	180.00	.50000-01	601.00	.1475	.1778	.1982	61.59	9.084	.4133	558.6	.1726-02
121	180.00	.60000-01	602.00	.1164	.1403	.1564	61.53	7.160	.4139	559.4	.3470-02
121	180.00	.70000-01	603.00	.2339	.2820	.3144	61.53	14.39	.4139	559.3	.6058-02
121	180.00	.80000-01	604.00	.4084	.4924	.5488	61.58	25.13	.4134	558.7	.3731-02
121	180.00	.10000-00	605.00	.2516	.3032	.3380	61.72	15.49	.4121	557.0	.2061-02
121	180.00	.15000	606.00	.1390	.1675	.1866	61.74	8.578	.4134	557.0	.1016-02
121	180.00	.20000	607.00	.6852-01	.8256-01	.9198-01	61.75	4.231	.4119	556.7	.8083-03
121	180.00	.25000	608.00	.5452-01	.6569-01	.7319-01	61.75	3.367	.4117	556.4	.6030-03
121	180.00	.30000	609.00	.4508-01	.5551-01	.6185-01	61.77	2.846	.4117	556.4	.5954-03
121	180.00	.35000	610.00	.4027-01	.4847-01	.5395-01	62.12	2.502	.4085	552.0	.5626-03
121	180.00	.40000	611.00	.3799-01	.4572-01	.5090-01	62.10	2.359	.4086	552.2	.5557-03
121	180.00	.45000	616.00	.3752-01	.4515-01	.5026-01	62.15	2.332	.4082	551.6	.5708-03
121	180.00	.50000	622.00	.3954-01	.4638-01	.5164-01	62.07	2.392	.4089	552.6	.5487-03
121	180.00	.55000	624.00	.3305-01	.4700-01	.5233-01	62.09	2.301	.4087	552.3	.5667-03
121	180.00	.60000	628.00	.3705-01	.4459-01	.4964-01	62.11	2.425	.4085	552.1	.5487-03
121	180.00	.65000	632.00	.3926-01	.4605-01	.5126-01	62.13	2.377	.4084	551.9	.5667-03
121	180.00	.70000	634.00	.3746-01	.4025-01	.4478-01	62.32	2.085	.4066	549.6	.4953-03
121	180.00	.75000	635.00	.3781-01	.4545-01	.5056-01	62.48	2.363	.4051	547.5	.5595-03

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AMES 3.5-211 1H4B

ARC3.5-21111H4B1ET /OGIVE /CLEAN /TRIP EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
121	180.00	.60000	636.00	.3818-01	.4595-01	.5115-01	62.12	2.372	.4084	551.9	.5654-03
121	180.00	.65000	637.00	.3839-01	.4620-01	.5144-01	62.08	2.383	.4088	552.4	.5685-03
121	180.00	.70000	638.00	.3791-01	.4561-01	.5077-01	62.22	2.359	.4075	550.8	.5614-03
121	180.00	.75000	639.00	.3795-01	.4562-01	.5075-01	62.44	2.369	.4055	548.0	.5615-03
121	180.00	.80000	640.00	.3686-01	.4435-01	.4938-01	62.11	2.289	.4085	552.1	.5458-03
121	180.00	.90000	646.00	.3482-01	.4187-01	.4660-01	62.34	2.171	.4084	549.3	.5154-03
121	180.00	.40000	658.00	.4027-01	.4846-01	.5394-01	62.14	2.502	.4083	551.8	.5963-03
121	191.25	.50000	672.00	.3643-01	.4381-01	.4875-01	62.33	2.270	.4065	549.4	.5392-03
121	191.25	.60000	673.00	.3792-01	.4563-01	.5080-01	62.13	2.356	.4083	551.9	.5616-03
121	191.25	.70000	674.00	.3762-01	.4527-01	.5038-01	62.21	2.341	.4076	550.9	.5571-03
121	191.25	.80000	675.00	.1473	.1776	.1979	61.68	9.089	.4125	557.4	.2185-02
121	217.70	.50000-01	715.00	.2426	.2923	.3256	61.74	14.98	.4119	556.7	.3596-02
121	217.70	.70000-01	716.00	.2897	.3490	.3887	61.84	17.92	.4110	555.5	.4294-02
121	217.70	.10000*00	717.00	.1426	.1717	.1912	62.00	8.842	.4095	553.4	.2113-02
121	217.70	.15000	718.00	.6701-01	.8068-01	.8985-01	61.97	4.153	.4098	553.8	.9928-03
121	217.70	.20000	719.00	.3881-01	.4668-01	.5195-01	62.27	2.417	.4070	550.1	.5745-03
121	217.70	.30000	720.00	.3815-01	.4592-01	.5113-01	62.02	2.366	.4093	553.2	.5651-03
121	217.70	.35000	721.00	.3709-01	.4461-01	.4965-01	62.27	2.310	.4070	550.1	.5491-03
121	217.70	.50000	723.00	.3798-01	.4572-01	.5089-01	62.09	2.358	.4087	552.4	.5626-03
121	217.70	.60000	724.00	.3976-01	.4784-01	.5326-01	62.14	2.470	.4083	551.8	.5887-03
121	217.70	.70000	725.00	.3839-01	.4623-01	.5149-01	61.90	2.376	.4105	554.8	.5688-03
121	217.70	.80000	726.00	.3777-01	.4550-01	.5069-01	61.80	2.334	.4114	555.9	.5598-03
121	217.70	.87000	727.00								



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ARC3.5-211(1H48)ET /OOIVE /CLEAN /TRIP EXT TANK

IRNBF26)

## EXTERNAL TANK

## PARAMETRIC DATA

ALPHA = 10.00 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. R	HT BTU/ LBM	PINF PSIA	TINF DEG. R	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
123	10.00	.0000	5.300	4.973	406.9	130E.	319.6	.5364	201.3	.2236-03	3686.	.1750-01
124	10.00	.0000	5.300	5.204	405.6	1269.	309.5	.5359	194.9	.2307-03	3627.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	HM/HT	TH DEG. R	STN NO R=0.9
123	.00000	.15100-01	978.00	.3544	.4404	.4917	59.88	21.82	.4206	560.3	.5370-02
123	.00000	.24000-01	980.00	.1838	.2281	.2545	60.09	11.35	.4186	557.7	.2781-02
123	.00000	.31000-01	981.00	.1595	.1926	.2149	60.15	9.594	.4180	558.9	.2348-02
124	.00000	.40000-01	737.00	.3727	.4532	.5081	56.08	20.90	.4374	564.3	.5421-02
124	.00000	.60000-01	739.00	.5487	.6682	.7499	55.71	30.57	.4409	568.8	.7991-02
124	.00000	.70000-01	740.00	.4604	.5607	.6293	55.68	25.63	.4413	569.2	.6706-02
124	.00000	.80000-01	741.00	.4137	.5040	.5657	55.61	23.00	.4419	570.1	.6027-02
124	.00000	.10000+00	742.00	.3412	.4157	.4666	55.61	18.97	.4419	570.1	.4971-02
124	.00000	.12500	743.00	.2745	.3344	.3754	55.57	15.26	.4420	570.2	.3999-02
124	.00000	.15000	744.00	.2288	.2788	.3130	55.52	12.71	.4424	570.7	.3334-02
124	.00000	.17500	745.00	.1538	.1874	.2104	55.45	8.537	.4429	571.3	.2241-02
124	.00000	.20000	746.00	.1191	.1452	.1630	55.41	6.603	.4435	572.1	.1736-02
124	.00000	.21500	747.00	.1051	.1282	.1440	55.41	5.825	.4439	572.7	.1533-02
124	.00000	.23000	748.00	.9141-01	.1114	.1251	55.48	5.072	.4432	571.8	.1332-02
124	.00000	.24000	749.00	.8711-01	.1061	.1190	55.74	4.856	.4407	568.5	.1269-02
124	.00000	.25000	750.00	.6553-01	.7350-01	.8915-01	56.44	3.699	.4338	559.7	.9523-03
124	.00000	.30000	751.00	.8215-01	.9297-01	.1121	55.91	4.593	.4390	566.4	.1196-02
124	.00000	.35000	752.00	.8108-01	.9871-01	.1108	55.78	4.523	.4402	567.9	.1181-02
124	.00000	.40000	753.00	.8640-01	.1251	.1179	55.95	4.834	.4386	565.9	.1257-02
124	.00000	.50000	754.00	.8204-01	.1004	.1122	59.50	4.935	.4241	565.0	.1223-02
123	.00000	.60000	755.00	.7838-01	.9483-01	.1059	59.59	4.867	.4233	563.9	.1156-02
123	.00000	.70000	756.00	.8150-01	.9970-01	.1102	59.64	4.867	.4228	563.2	.1203-02
123	.00000	.80000	757.00	.8533-01	.1032	.1152	59.80	5.103	.4213	561.2	.1258-02
123	.00000	.90000	758.00	.8512-01	.1040	.1161	60.05	5.171	.4190	558.2	.1268-02
123	.67.500	.27000	760.00	.6044-01	.7305-01	.8155-01	59.89	3.620	.4204	560.1	.8906-03
123	.67.500	.30000	772.00	.5134-01	.6211-01	.6339-01	59.59	3.059	.4233	563.9	.7571-03

AMES 3.5-211 1H48

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ARC3.5-211(1H48)ET /OOIVE /CLEAN /TRIP EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H/H/HT	TM DEG. R	STN NO R=0.9
123	67.500	32000	774.00	.5025-01	.6080-01	.6793-01	59.54	2.992	.4238	564.5	.7411-03
123	67.500	33000	776.00	.5018-01	.6071-01	.6782-01	59.60	2.991	.4232	563.7	.7400-03
124	67.500	36500	783.00	.4710-01	.5723-01	.6413-01	56.33	2.853	.4349	561.1	.6847-03
124	67.500	38000	786.00	.4579-01	.5583-01	.6365-01	56.45	2.641	.4338	559.6	.6799-03
124	67.500	40000	789.00	.4705-01	.5716-01	.6403-01	56.40	2.654	.4342	560.2	.6838-03
124	67.500	50000	799.00	.4754-01	.5768-01	.6455-01	56.76	2.599	.4308	555.7	.6902-03
124	67.500	50000	800.00	.4753-01	.5768-01	.6454-01	56.41	2.456	.4342	560.1	.6326-03
124	67.500	80000	791.00	.4093-01	.5087-01	.5924-01	56.66	2.319	.4317	556.9	.5943-03
124	67.500	80000	792.00	.4066-01	.4939-01	.5533-01	56.38	2.292	.4344	560.4	.5909-03
124	67.500	90000	793.00	.3686-01	.4473-01	.5007-01	56.70	2.090	.4313	556.5	.5352-03
123	90.000	40000-01	985.00	.1920	.2319	.2589	59.98	11.51	.4196	559.0	.2828-02
123	90.000	50000-01	986.00	.3245	.3923	.4381	59.78	19.40	.4215	561.5	.4783-02
123	90.000	60000-01	987.00	.4156	.5026	.5613	59.70	24.81	.4222	562.5	.6127-02
123	90.000	70000-01	988.00	.2982	.3606	.4028	59.66	17.79	.4226	563.0	.4396-02
123	90.000	80000-01	989.00	.2276	.3599	.4021	59.63	17.74	.4230	563.4	.4788-02
123	90.000	100000-00	990.00	.2889	.3769	.4289	59.63	13.65	.4229	563.3	.3375-02
123	90.000	15000	991.00	.1273	.1540	.1721	59.56	7.583	.4235	564.2	.1878-02
123	90.000	20100	813.00	.3999-01	.4840-01	.5410-01	59.42	2.376	.4249	566.0	.5900-03
123	90.000	24000	814.00	.3488-01	.4221-01	.4716-01	59.54	2.077	.4237	564.5	.5145-03
123	90.000	25000	815.00	.2946-01	.3661-01	.3975-01	59.89	1.764	.4205	560.2	.4341-03
123	90.000	30000	816.00	.4084-01	.4934-01	.5507-01	59.97	2.449	.4197	559.1	.6016-03
123	90.000	35000	817.00	.3510-01	.4242-01	.4737-01	59.84	2.100	.4210	560.8	.5172-03
123	90.000	40000	818.00	.3566-01	.4337-01	.4844-01	59.69	2.141	.4223	562.6	.5332-03
123	90.000	45000	820.00	.3617-01	.4374-01	.4885-01	59.69	2.159	.4210	560.8	.5324-03
123	90.000	50000	822.00	.3612-01	.4367-01	.4875-01	59.81	2.136	.4203	559.9	.5253-03
123	90.000	55000	823.00	.3566-01	.4309-01	.4810-01	59.91	2.092	.4197	559.1	.5138-03
123	90.000	60000	824.00	.3488-01	.4214-01	.4704-01	59.98	2.026	.4192	558.5	.4972-03
123	90.000	632.00	832.00	.3376-01	.4078-01	.4551-01	60.02	1.945	.4192	558.5	.4778-03
123	90.000	634.00	834.00	.3340-01	.3914-01	.4369-01	60.02	1.945	.4197	559.1	.4778-03
123	90.000	65000	835.00	.3243-01	.3919-01	.4374-01	59.97	1.651	.4196	559.0	.4055-03
123	90.000	66000	836.00	.2752-01	.3325-01	.3712-01	59.98	1.407	.4203	559.8	.3450-03
123	90.000	68000	838.00	.2349-01	.2838-01	.3168-01	59.91	1.301	.4194	558.7	.3193-03
123	90.000	70000	839.00	.2168-01	.2619-01	.2923-01	60.01	1.490	.4220	562.2	.3676-03
123	90.000	72000	844.00	.2394-01	.3016-01	.3368-01	59.73	1.431	.4213	561.3	.3531-03
123	90.000	73000	845.00	.2396-01	.2794-01	.3235-01	59.80	1.382	.4209	560.7	.3407-03
123	90.000	74000	846.00	.2294-01	.2773-01	.3097-01	59.84	1.373	.4204	560.1	.3391-03
123	90.000	75000	847.00	.2312-01	.2794-01	.3120-01	59.89	1.276	.4207	560.5	.3140-03
123	90.000	76000	848.00	.2131-01	.2575-01	.2875-01	59.86	1.184	.4204	560.1	.2915-03
123	90.000	77000	848.00	.1978-01	.2391-01	.2669-01	59.86	1.147	.4209	560.7	.2823-03
123	90.000	78000	849.00	.1916-01	.2316-01	.2586-01	59.84	1.004	.4197	559.1	.2456-03
123	90.000	79000	851.00	.1674-01	.2022-01	.2258-01	59.97	1.004	.4212	561.1	.2320-03
123	90.000	80000	851.00	.1574-01	.1903-01	.2125-01	59.81	.8556	.4213	561.2	.2109-03
123	90.000	85000	852.00	.1431-01	.1730-01	.1931-01	59.80				

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(b)(7)(D)

YES 3-5-21 1448

ARC3.5-2111491ET /OOIVE /CLEAN /TRIP EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QDOT BTU/ FT <sup>2</sup> SEC	H4/H7	TH DEG. R	STN NO R=0.9
123	112.50	70000	853.00	.1354-01	.1637-01	.1828-01	59.78	.0089	.4217	581.8	.1995-03
123	112.50	75000	854.00	.1025-01	.1239-01	.1383-01	59.95	.8146	.4199	559.4	.1510-03
123	112.50	80000	855.00	.7476-02	.9038-02	.1009-01	59.79	.4470	.4214	561.4	.1102-03
123	112.50	90000	856.00	.9557-02	.1155-01	.1290-01	59.89	.5723	.4205	560.2	.1408-03
123	135.00	40000-01	870.00	.1718	.1718	.1718	60.06	8.541	.4189	558.0	.2094-02
123	135.00	50000-01	871.00	.1391	.1682	.1878	59.86	8.329	.4208	560.6	.2051-02
123	135.00	60000-01	872.00	.3012	.2761	.3083	59.84	13.67	.4210	560.8	.3366-02
123	135.00	70000-01	873.00	.3012	.2761	.3083	59.74	17.99	.4219	562.0	.4439-02
123	135.00	80000-01	874.00	.2071	.2504	.2796	59.76	12.38	.4217	561.8	.3052-02
123	135.00	10000-00	875.00	.1810	.2188	.2444	59.78	10.82	.4215	561.5	.2668-02
123	135.00	15000	876.00	.7972-01	.9539-01	.1076	59.76	4.764	.4217	561.8	.1175-02
123	135.00	20000	877.00	.3359-01	.4063-01	.4537-01	59.70	2.005	.4223	562.5	.4953-03
123	135.00	30000	878.00	.1734-01	.2097-01	.2341-01	59.77	1.037	.4216	561.7	.2556-03
123	135.00	40000	879.00	.1516-01	.1832-01	.2046-01	59.83	.9069	.4210	560.9	.2234-03
123	135.00	50000	880.00	.1147-01	.1386-01	.1547-01	59.84	.6861	.4210	560.8	.1690-03
123	135.00	55000	881.00	.9142-02	.1105-01	.1233-01	59.99	.5484	.4210	558.9	.1347-03
123	135.00	60000	882.00	.5772-02	.6977-02	.7791-02	59.83	.5036	.4210	560.9	.8506-04
123	135.00	65000	883.00	.8417-02	.1017-01	.1136-01	59.83	.5346	.4212	561.1	.1240-03
123	135.00	70000	884.00	.8938-02	.1080-01	.1206-01	59.81	.6364	.4212	559.1	.1317-03
123	135.00	75000	885.00	.1761-01	.1282-01	.1431-01	59.97	.6364	.4197	559.1	.1563-03
123	135.00	80000	886.00	.1154-01	.1294-01	.1557-01	59.89	.6909	.4205	560.2	.1700-03
123	135.00	90000	893.00	.1650-01	.1993-01	.2225-01	60.02	.9902	.4193	558.6	.2430-03
123	154.93	94500	914.00	.4604-02	.5665-02	.6213-02	59.86	.2756	.4208	560.5	.6785-04
123	137.00	40000-01	600.00	.1089	.1324	.1484	56.18	6.119	.4364	563.0	.1584-02
123	137.00	50000-01	601.00	.8843-01	.1076	.1207	55.94	4.947	.4397	566.0	.1287-02
123	137.00	60000-01	602.00	.7961-01	.1076	.1207	55.94	4.947	.4392	566.0	.1159-02
123	137.00	70000-01	603.00	.1224	.1490	.1672	55.89	6.843	.4393	566.7	.1782-02
123	137.00	80000-01	604.00	.2006	.2442	.2739	55.90	11.22	.4391	566.5	.2921-02
123	137.00	90000-01	605.00	.1269	.1544	.1731	55.98	7.104	.4383	566.5	.1847-02
123	137.00	100000-00	606.00	.5972-01	.7261-01	.8139-01	56.17	3.355	.4385	563.1	.6886-03
123	137.00	15000	607.00	.2428-01	.2830-01	.3172-01	56.19	1.308	.4363	562.9	.3448-03
123	137.00	21000	608.00	.1684-01	.2047-01	.2294-01	56.22	.9464	.4361	562.4	.2448-03
123	137.00	26000	609.00	.1361-01	.1654-01	.1854-01	56.23	.7652	.4359	562.4	.1979-03
123	137.00	30000	610.00	.5702-02	.6321-02	.7749-02	56.61	.3228	.4322	557.6	.9281-04
123	137.00	35000	611.00	.4492-02	.4904-02	.1018-01	56.60	.4241	.4323	557.7	.1088-03
123	137.00	40000	612.00	.1453-01	.1763-01	.1974-01	56.65	.8229	.4318	557.0	.2109-03
123	137.00	45000	616.00	.1854-01	.2250-01	.2520-01	56.62	1.050	.4320	557.4	.2693-03
123	137.00	50000	624.00	.1893-01	.2297-01	.2572-01	56.63	1.072	.4317	557.4	.2749-03
123	137.00	55000	628.00	.1848-01	.2342-01	.2510-01	56.67	1.047	.4320	556.9	.2693-03
123	137.00	60000	632.00	.1963-01	.2381-01	.2666-01	56.71	1.113	.4313	556.4	.2850-03
123	137.00	65000	634.00	.1823-01	.2212-01	.2476-01	56.83	1.037	.4300	554.8	.2648-03
123	137.00	70000	635.00	.2101-01	.2546-01	.2847-01	57.09	1.199	.4275	551.6	.3047-03
123	137.00	75000	636.00	.2322-01	.2903-01	.3249-01	56.67	1.355	.4317	556.9	.3473-03

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AMES 3.5-211 1H48

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(R55726)

ARC3.5-211(1H48)ET /OOIVE /CLEAN /TRIP EXT TANK

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	OOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.5
124	180.00	.65000	637.00	.2676-01	.3248-01	.3637-01	56.61	1.515	.4322	557.5	.3887-03
124	180.00	.70000	638.00	.2930-01	.3554-01	.3978-01	56.80	1.664	.4303	555.2	.4253-03
124	180.00	.75000	639.00	.3178-01	.3852-01	.4309-01	56.99	1.811	.4285	552.8	.4610-03
124	180.00	.80000	640.00	.3245-01	.3935-01	.4412-01	56.53	1.834	.4330	558.5	.4713-03
124	180.00	.85000	646.00	.3121-01	.3786-01	.4237-01	56.76	1.771	.4308	555.7	.4530-03
124	191.25	.40000	658.00	.1833-01	.2224-01	.2489-01	56.81	1.042	.4303	555.1	.2661-03
124	191.25	.50000	672.00	.1955-01	.2382-01	.2655-01	56.95	1.119	.4289	553.4	.2851-03
124	191.25	.60000	673.00	.1869-01	.2389-01	.2674-01	56.71	1.116	.4313	556.4	.2858-03
124	191.25	.70000	674.00	.2055-01	.2504-01	.2803-01	56.81	1.173	.4303	555.1	.2997-03
124	217.70	.50000-01	715.00	.2251	.2739	.3072	55.93	12.59	.4389	566.2	.3276-02
124	217.70	.70000-01	716.00	.2523	.3070	.3442	56.01	14.13	.4381	565.2	.3672-02
124	217.70	.10000+00	717.00	.1820	.2213	.2481	56.12	10.22	.4370	563.7	.2848-02
124	217.70	.15000	718.00	.7539-01	.9159-01	.1026	56.34	4.248	.4348	560.9	.1098-02
124	217.70	.20000	719.00	.3033-01	.3685-01	.4129-01	56.37	1.710	.4346	560.6	.4409-03
124	217.70	.30000	720.00	.1209-01	.1467-01	.1642-01	56.74	.6860	.4309	555.9	.1755-03
124	217.70	.35000	721.00	.1632-01	.1981-01	.2218-01	56.56	.9229	.4327	558.3	.2370-03
124	217.70	.50000	723.00	.1005-01	.1219-01	.1364-01	56.93	.5724	.4291	553.5	.1459-03
124	217.70	.60000	724.00	.1046-01	.1269-01	.1421-01	56.70	.5932	.4313	556.4	.1512-03
124	217.70	.70000	725.00	.9896-02	.1200-01	.1344-01	56.77	.5618	.4307	555.6	.1436-03
124	217.70	.30000	726.00	.9395-02	.1129-01	.1265-01	56.40	.5242	.4343	560.2	.1351-03
124	217.70	.27000	727.00	.9742-02	.1184-01	.1327-01	56.28	.5483	.4354	561.7	.1416-03

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CASE 3.8-211 (H43)

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(RNF27)

## ARC3.5-211 (H43) / OGVIE / CLEAV / CRIP EXT TANK

## EXTERNAL TANK

## PARAMETRIC DATA

ALPHA = 5.000 BETA = .0000 RN/L = 5.000

## \*\*\*TEST CONDITIONS\*\*\*

RUN NUMBER	ALPHA DEG.	BETA DEG.	MACH	RN/L PER FT X10.6	PT PSIA	TT DEG. F	HT BTU/ LBH	PINF PSIA	TINF DEG. F	RHO SLUG/ FT <sup>3</sup>	VINF FT/SEC	SCALE
126	5.000	.0000	5.300	4.730	405.5	134.9	330.2	.9347	207.9	.2153-03	3746.	.1750-01

## \*\*\*TEST DATA\*\*\*

RUN NUMBER	PHI	X/L	TC NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT <sup>2</sup> SEC	QOCT BTU/ FT <sup>2</sup> SEC	HA/HT	TH DEG. F	SIN NO R=0.9
126	.00000	.15100-01	978.00	.4384	.5280	.5880	63.03	27.63	.4105	564.9	.6574-02
126	.00000	.24000-01	980.00	.3124	.3750	.4182	63.37	19.79	.4074	560.7	.4680-02
126	.00000	.50000	754.00	.5375-01	.6477-01	.7217-01	52.83	3.377	.4123	567.	.8264-03
126	.00000	.60000	755.00	.5299-01	.6385-01	.7114-01	62.86	3.331	.4120	557.0	.7948-03
126	.00000	.70000	756.00	.5095-01	.6317-01	.7370-01	63.05	3.465	.4103	564.6	.8239-03
126	.50000	.80000	757.00	.5050-01	.6528-01	.7770-01	63.11	3.474	.4027	563.9	.8263-03
126	.00000	.90000	759.00	.5339-01	.6421-01	.7160-01	63.40	3.384	.4072	562.4	.7956-02
126	.67500	.27000	770.00	.5033-01	.6063-01	.6750-01	63.24	3.186	.4085	562.4	.7956-02
126	.67500	.32000	772.00	.4402-01	.5304-01	.5909-01	62.89	2.769	.4117	566.6	.6203-03
126	.67500	.33000	774.00	.4390-01	.5306-01	.5913-01	62.81	2.766	.4125	567.6	.6203-03
126	.67500	.40000-01	995.00	.2777	.3345	.3726	62.97	17.49	.4111	567.3	.6203-03
126	.67500	.50000-01	986.00	.4003	.4826	.5378	62.73	25.11	.4132	569.7	.4165-02
126	.67500	.60000-01	987.00	.4575	.5516	.6449	62.63	28.65	.4141	569.9	.6000-02
126	.67500	.70000-01	989.00	.2915	.3516	.3919	62.61	18.25	.4143	570.2	.4377-02
126	.67500	.80000-01	989.00	.3097	.3735	.4154	62.57	19.38	.4146	570.6	.4377-02
126	.67500	.90000-01	990.00	.2333	.2913	.3135	62.64	14.61	.4140	569.7	.4377-02
126	.67500	.10000-00	991.00	.1299	.1566	.1746	62.61	8.133	.4143	570.1	.4377-02
126	.67500	.20100	813.00	.4224-01	.5093-01	.5677-01	62.64	2.846	.4120	569.9	.4377-02
126	.67500	.24000	814.00	.3653-01	.4402-01	.4905-01	62.81	2.294	.4125	567.6	.4377-02
126	.67500	.25000	815.00	.3018-01	.3333-01	.4044-01	63.24	1.909	.4086	562.3	.4377-02
126	.67500	.27000	816.00	.4190-01	.5011-01	.5611-01	63.36	2.655	.4075	562.9	.4377-02
126	.67500	.27000	817.00	.3797-01	.4670-01	.5089-01	63.20	2.399	.4097	562.9	.4377-02
126	.67500	.28000	818.00	.3933-01	.4701-01	.5036-01	63.01	2.460	.4106	565.1	.4377-02
126	.67500	.29000	820.00	.3918-01	.4719-01	.5057-01	62.97	2.467	.4111	565.7	.4377-02
126	.67500	.30000	822.00	.3912-01	.4710-01	.5045-01	63.11	2.469	.4098	562.9	.4377-02
126	.67500	.35000	826.00	.3873-01	.4626-01	.5151-01	63.14	2.426	.4095	563.5	.4377-02

DATE 05 MAR 76

AMES 3.5-211 1H48

AKC3.5-211(1H48)ET /OOIVE /CLEAN /TRIP EXT TANK

P/W NUMBER	PHI	X/L	TC NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	COOT BTU/ FT2SEC	KW/WT	TH DEG. R	TEMP DEG. F
1200	0.000	0.000	829.00	3871-01	4660-01	5188-01	63.19	2146	4.000	23.0	72.0
1201	0.000	0.000	832.00	3755-01	4520-01	5032-01	63.23	2175	4.005	23.0	72.0
1202	0.000	0.000	834.00	3649-01	4391-01	4888-01	63.23	2197	4.007	23.0	72.0
1203	0.000	0.000	835.00	3742-01	4500-01	5009-01	63.31	2158	4.008	23.0	72.0
1204	0.000	0.000	836.00	3743-01	4134-01	4604-01	63.13	2168	4.005	23.0	72.0
1205	0.000	0.000	837.00	3245-01	3907-01	4350-01	63.15	2149	4.004	23.0	72.0
1206	0.000	0.000	838.00	3087-01	3717-01	4140-01	63.05	1835	4.003	23.0	72.0
1207	0.000	0.000	839.00	3251-01	3552-01	3955-01	63.20	1835	4.003	23.0	72.0
1208	0.000	0.000	840.00	3733-01	4081-01	4539-01	63.09	2141	4.003	23.0	72.0
1209	0.000	0.000	841.00	3733-01	4020-01	4478-01	63.02	2164	4.010	23.0	72.0
1210	0.000	0.000	842.00	3733-01	3862-01	4301-01	63.05	2122	4.010	23.0	72.0
1211	0.000	0.000	843.00	3733-01	3932-01	4337-01	63.11	2133	4.010	23.0	72.0
1212	0.000	0.000	844.00	3733-01	3778-01	4207-01	63.09	1833	4.010	23.0	72.0
1213	0.000	0.000	845.00	3733-01	3735-01	4193-01	63.16	1833	4.010	23.0	72.0
1214	0.000	0.000	846.00	3733-01	3714-01	4135-01	63.26	1833	4.010	23.0	72.0
1215	0.000	0.000	847.00	3733-01	3716-01	4055-01	62.84	1833	4.010	23.0	72.0
1216	0.000	0.000	848.00	3733-01	3730-01	4075-01	63.01	1833	4.010	23.0	72.0
1217	0.000	0.000	849.00	3733-01	3730-01	4075-01	63.25	1833	4.010	23.0	72.0
1218	0.000	0.000	850.00	3733-01	3730-01	4075-01	62.55	1833	4.010	23.0	72.0
1219	0.000	0.000	851.00	3733-01	3730-01	4075-01	62.08	1833	4.010	23.0	72.0
1220	0.000	0.000	852.00	3733-01	3730-01	4075-01	62.59	1833	4.010	23.0	72.0
1221	0.000	0.000	853.00	3733-01	3730-01	4075-01	62.87	1833	4.010	23.0	72.0
1222	0.000	0.000	854.00	3733-01	3730-01	4075-01	62.64	1833	4.010	23.0	72.0
1223	0.000	0.000	855.00	3733-01	3730-01	4075-01	62.88	1833	4.010	23.0	72.0
1224	0.000	0.000	856.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1225	0.000	0.000	857.00	3733-01	3730-01	4075-01	62.69	1833	4.010	23.0	72.0
1226	0.000	0.000	858.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1227	0.000	0.000	859.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1228	0.000	0.000	860.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1229	0.000	0.000	861.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1230	0.000	0.000	862.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1231	0.000	0.000	863.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1232	0.000	0.000	864.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1233	0.000	0.000	865.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1234	0.000	0.000	866.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1235	0.000	0.000	867.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1236	0.000	0.000	868.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1237	0.000	0.000	869.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1238	0.000	0.000	870.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1239	0.000	0.000	871.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1240	0.000	0.000	872.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1241	0.000	0.000	873.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1242	0.000	0.000	874.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1243	0.000	0.000	875.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1244	0.000	0.000	876.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1245	0.000	0.000	877.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1246	0.000	0.000	878.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1247	0.000	0.000	879.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1248	0.000	0.000	880.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1249	0.000	0.000	881.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1250	0.000	0.000	882.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1251	0.000	0.000	883.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1252	0.000	0.000	884.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1253	0.000	0.000	885.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1254	0.000	0.000	886.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1255	0.000	0.000	887.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1256	0.000	0.000	888.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1257	0.000	0.000	889.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1258	0.000	0.000	890.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1259	0.000	0.000	891.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1260	0.000	0.000	892.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1261	0.000	0.000	893.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1262	0.000	0.000	894.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1263	0.000	0.000	895.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1264	0.000	0.000	896.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1265	0.000	0.000	897.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1266	0.000	0.000	898.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1267	0.000	0.000	899.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0
1268	0.000	0.000	900.00	3733-01	3730-01	4075-01	62.67	1833	4.010	23.0	72.0